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IN THE

Supreme Court of the United States

OCTOBER TERM, 1961.

No. 316

ALUMINUM COMPANY OF AMERICA, ELECTRO-CIRCUITS, INC., AND CURTISS-WRIGHT CORPORATION,

Petitioners,

vs.

SPERRY PRODUCTS, INC., FLOYD A. FIRESTONE AND UNITED AIRCRAFT CORPORATION,

Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT.

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SPERRY PRODUCTS, INC., FLOYD A. FIRESTONE AND UNITED AIRCRAFT CORPORATION,

Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT.

To the Honorable Chief Justice and Associate Justices of the Supreme Court of the United States:

Aluminum Company of America, ElectroCircuits, Inc. and Curtiss-Wright Corporation, defendants-appellants in the proceedings below, hereby respectfully petition this Court for a Writ of Certiorari directed to the United States Court of Appeals for the Sixth Circuit to review the Judgment of that Court entered November 22, 1960 (Petitions for Rehearing denied June 1, 1961) insofar as it affirmed

that part of the Judgment of the District Court entered February 10, 1959 holding valid and infringed claims 1, 2, 3, 4, 10 and 11 of Firestone Patent No. 2,280,226 (847a—Referred to as the "No. 1 patent") and claims 1, 2 and 3 of Firestone Patent No. 2,467,301 (865a—Referred to as the "No. 3 patent") and insofar as that Judgment dismissed patent misuse defenses and the counterclaim of petitioner, ElectroCircuits, Inc., for violation of the anti-trust laws.

OPINIONS BELOW.

The Memorandum Opinion of the District Court is reported at 171 F. Supp. 901 and is printed at 771a.

The Opinion of the Court of Appeals is reported at 285 F. 2d 911 and said Opinion, together with the Judgment of the Court of Appeals, is printed in the Appendix (1a to 32a) to a Petition of Floyd A. Firestone filed in this Court under No. 184 and therefore is not appended hereto.

Petitioners' Petition for Rehearing as to Firestone Patent No. 2,467,301 (865a) is printed in the Appendix hereto at page 33.

The Order of the Court of Appeals denying Petitioners' said Petition for Rehearing is printed in the Appendix hereto at page 41.

JURISDICTION.

Jurisdiction of this Court is invoked under 28 U. S. C. Section 1254(1). This petition is filed within the time provided by 28 U. S. C. Section 2101(c), the Petition for Rehearing herein having been denied on June 1, 1961.

QUESTIONS PRESENTED.

First Question.

Is trade unreasonably restrained by an agreement through which a patent holder requires that purchasers of certain immersion[1] equipment from another also have or purchase expensive and 80% unusable contact[2] equipment from the patent holder, where :

(1) Aircraft manufacturers in the interest of public safety need and desire immersion equipment because it is uniquely suitable for detecting internal flaws in aircraft forgings;

(2) The patent holder has a 100% monopoly in the field of pulse-echo inspection of metal articles such as aircraft forgings and charges that its patents are infringed by such immersion equipment, but is unable or unwilling to make immersion equipment and makes only contact equipment which is not suitable for testing aircraft forgings;

(3) A new company, being ready and able to market immersion equipment, assumes without investigation that the infringement charges are justified and goes to the patent holder to request a license; and

(4) The patent holder while refusing to license on a

1. In *Immersion* testing equipment, the transducer crystal and the part to be tested (the workpiece) are immersed in a tank of water and are separated from each other so that the ultrasonic waves travel through the water and the crystal and workpiece may be freely moved during the inspection operation. This permits the inspection of irregularly shaped objects such as aircraft forgings.

2. In *Contact* testing equipment, the transducer crystal and workpiece are held in intimate contact so that the ultrasonic waves travel directly from the crystal into the workpiece. This equipment is unusable for the testing of irregularly shaped aircraft forgings.

royalty basis uses the agreement to hold the new company in a subservient position and to forestall challenge of its patents?

Second Question.

Has Section 112 of the 1952 Patent Act (35 U. S. C. 112):

(a) so "modified or rendered obsolete"* the prior existing decisions of this Court holding functional patent claims invalid, that claims relying solely upon a functional statement for their novelty are now valid, and

(b) modified the rule previously applied by this Court that infringement can only exist by the adoption of a novel feature disclosed in the patent and not by the adoption of techniques previously known to the prior art, or

(c) is the 1952 Patent Act a codification of prior existing law?

STATUTES INVOKED.

The pertinent statutory provisions here invoked are printed in the Appendix hereto, *infra*. They comprise Sections 2, 15 and 26 of Title 15 U. S. C. and Sections 101, 102(a) and (b), 103, 112 and 154 of Title 35 U. S. C.

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* The decision of the Court of Appeals quotes with approval a commentary on the Act, written by a Patent Office Examiner, that "decisions such as that in *Halliburton Oil Well Cementing Co.* v. *Walker*, 67 S. Ct. 6, 329 U. S. 1, 91 L. Ed. 3 (1946), are modified or rendered obsolete, but the exact limits of the enlargement remain to be determined." This decision is printed at page 6a of the appendix to the Petition of Firestone heretofore filed under Docket No. 184.

STATEMENT OF THE CASE.

INTRODUCTION.

This Petition seeks issuance of the Writ of Certiorari on two general grounds:

(1) That the public safety is vitally affected by the outcome of this case which involves certain immersion ultrasonic testing equipment developed by defendant, Electro-Circuits, Inc., and uniquely suitable for detecting hidden cracks or flaws in aircraft forgings; and

(2) That the Court of Appeals has decided Federal questions in direct conflict with decisions of this Court, greatly extending the scope of monopoly obtainable through patents, and the scope of permissible activity of patent owners in limiting competition.

PLEADINGS AND PARTIES IN GENERAL.

This suit was commenced on September 20, 1954, as an action for infringement of patents of plaintiff, Floyd A. Firestone, Nos. 2,280,226 (PX 1, 847a), 2,398,701 (PX 2, 855a), 2,467,301 (PX 3, 865a) and 2,592,134 (PX 4, 869a), which are referred to herein and in the opinions of the Courts below respectively as Patents Nos. 1, 2, 3 and 4.

The plaintiffs are Floyd A. Firestone, patentee of all four patents in suit and the owner of the legal title to Patent No. 1; Sperry Products, Inc., a New York corporation, the exclusive licensee under Patents Nos. 1 and 2, and the owner of Patents Nos. 3 and 4; and United Aircraft Corporation, a Delaware corporation, the owner of Patent No. 2 and present here as an involuntary party-plaintiff.

The defendants are Aluminum Company of America (hereinafter called Alcoa), a Pennsylvania corporation, with a place of business at Cleveland, Ohio, where it has used the alleged infringing apparatus known as an "Immerscope"; ElectroCircuits, Inc., maker and supplier to Alcoa of such apparatus; and Curtiss-Wright Corporation, a Delaware corporation, which was named as intervening defendant on its own motion, by an Order dated February 10, 1959 (2a). Said Curtiss-Wright Corporation had, subsequent to October 17, 1955, manufactured Immerscopes under license from ElectroCircuits and, due to the inability of ElectroCircuits to do so, has financed the defense to this litigation subsequent to that date (773a).

To overcome the deficiencies of the originally filed complaint, an Amended and Supplemental Complaint was filed on July 18, 1957 (3a to 16a). The Answer of defendants Aluminum Company of America and ElectroCircuits, Inc. (51a to 57a) denies infringement and asserts that the patents are invalid and unenforceable on several grounds, including misuse. A counterclaim filed by ElectroCircuits (58a to 67a) asserts violation of the antitrust laws by plaintiff to the damage of ElectroCircuits and asks for treble damages.

The Memorandum Opinion of the District Court (771a to 842a) held all asserted claims of all four patents in suit valid and infringed, with the exception of claim 7 of Patent No. 2 which was held invalid, and found the misuse defense and the counterclaim to be without merit.

The Opinion of the Court of Appeals (285 F. 2d 911) affirms the District Court with respect to its findings of validity and infringement of the asserted claims of Patents Nos. 1, 3 and 4, affirms the District Court in its dismissal of the misuse defense and counterclaim, and reverses the District Court with respect to its finding of validity of certain asserted claims of Patent No. 2.

Defendants-appellants filed a Petition for Rehearing and Reconsideration with respect to the findings of validity and infringement of the No. 3 Patent. This was denied by an Order entered June 1, 1961, printed in the Appendix hereto at page 41.

This Petition involves only the No. 1 and No. 3 Patents in suit, the misuse defense and the counterclaim under the antitrust laws. It does not involve either Patent No. 2 or Patent No. 4.

SUBJECT MATTER OF THE PATENTS INVOLVED.

The patents involved all relate to applications of a principle that was old and well known prior to any invention of the patentee Firestone. That principle consists of the electronic timing of ultrasonic waves (sound waves of too high a frequency to be audible) created by an electrically vibrated crystal, from the point of their creation to a point of interruption where they are "echoed" back to the crystal. This principle was widely utilized in the prior art for underwater depth charting and for the location and determination of the distance to submerged objects such as submarines. The same principle has long been utilized with audible sound as in navigation, where the time of return of echoes from the blasts of a steamboat whistle furnished accurate information as to the distance of the ship from a precipitous shore line.

It was also well known prior to Firestone that ultrasonic waves are capable of penetrating solid objects as well as water and that echoes thereof are returned to the source whenever the waves encounter a discontinuity, as, for example, upon entering or leaving a solid object or passing through a flaw or discontinuity therein.

Respondents' embodiment of the patent inventions is called a "Reflectoscope". In the structure of the No. 1

Patent, the transducer crystal from which the ultrasonic waves emanate is in *direct contact* with the part to be tested. In the No. 3 Patent, a spacer of metal or a container of liquid *contacts* the crystal at one end and the part to be tested at the other end. With these *contact* instruments, it is not practicable to inspect irregularly shaped articles such as aircraft forgings.

Petitioners' "Immerscope" derives its name from the immersion of the part to be tested in a tank of water.* The sender-receiver device, the crystal, is also submerged, usually at a position above the part. The crystal periodically sends a burst or pulse of sound waves down through the water toward the part, and "listens" for the return of echoes from the upper surface of the part and from flaws or discontinuities in the interior of the part. The operation is exactly the same as in prior art ultrasonic systems used in investigating layers of mud or clay at the bottom of the ocean.

The principal advantage of the immersion technique was known prior to Firestone.** The crystal can be freely moved along under the water to scan the part under test, and *because there is no contact between the crystal and the part*, the part can be one having a rough surface and an irregular shape, such as an aircraft forging. At the same time, the water serves as a medium which provides uniform acoustic coupling between the crystal and the part. Such results cannot be obtained with the contact method of the Firestone patents and respondents' Reflectoscope.

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* Attention is invited to the stipulated description of the Immerscope (22a-25a).

** Sokolov 1935 publication (1214a, 1215a, 1220a); Bergmann 1938 publication (1004a); Gotz 1943 publication (1229a, 1231a-1233a).

FORMATION OF ELECTROCIRCUITS AND RELATIONSHIP WITH SPERRY.

Prior to formation of Petitioner, ElectroCircuits, Inc., William C. Hitt of Douglas Aircraft Company (441a) had tested the Reflectoscope of Respondent, Sperry Products, Inc., and found that it was impossible to use it on the majority of die forgings used in aircraft, because it used the contact method and was limited to testing of materials that were flat and smooth (445a).

In 1949 or early 1950, Hitt tested immersion equipment of Donald Erdman, later an organizer of ElectroCircuits, Inc. Hitt found the immersion method both suitable and necessary for the inspection of die forgings and irregularly-shaped parts (446a, 456a). Thereafter, Hitt as a member of the Society for Non-Destructive Testing called a meeting in Detroit which was attended by representatives of various aircraft companies and airframe manufacturers and also by a representative of Sperry (447a-448a, 600a-602a).

The need for immersion equipment was discussed and the Sperry representative indicated that Sperry would improve its equipment (449a, 600a-602a). However, Sperry furnished no satisfactory immersion equipment until 1955 (498a-499a, 604a, 627a, 731a) and there is uncontroverted evidence that even that equipment, the UW Reflectoscope, is not satisfactory for production line testing (Gauthier, 499a-500a; Prosek, 513a).

ElectroCircuits was organized in California in 1951, and wanted to market immersion equipment to meet the demand of the aircraft companies, but found that Sperry regarded its patents as infringed. Sperry then had a 100% monopoly in the field of pulse-echo inspection of metals. ElectroCircuits did not proceed to make immersion equipment and did not ignore the possible rights of Sperry. Instead,

Richards of ElectroCircuits went to New York, requested a license and made other proposals to Sperry. All were refused. The best deal Richards could get was an agreement that Sperry would forebear instituting suit for infringement provided that ElectroCircuits sold a Wide Band Converter for use only with the Sperry Reflectoscope. The Wide Band Converter was designed to be plugged into the Reflectoscope and used only the oscilloscope portion thereof. The Reflectoscope was then 80% useless (Richards, 651a-655a; District Court Opinion, 773a, 826a).

Under the agreement ElectroCircuits sold only eight Wide Band Converters to owners of Reflectoscopes and was only able to make one sale to a customer who agreed to its use with a Reflectoscope to be purchased from Sperry (826a).

In March 1953, Sperry charged that the tying agreement was breached by the sale by ElectroCircuits of a B Scan display unit in conjunction with the Wide Band Converter (827a). On May 6, 1953, Richards went to New York and conferred with Sperry. Farwell, president of Sperry, commented that "they were not interested in considering a license because the field was not large enough for two companies" (Richards, 660a).* Richards proposed that ElectroCircuits convert to a non-infringing FM system, and Sperry agreed (661a). However, on May 22, 1953, Sperry served notice that the FM apparatus "might well infringe our patent" (DX VVV, 1274a).

ElectroCircuits was then advised of the opinion of one firm of lawyers that the Sperry patents were invalid. After obtaining the same opinion from another firm, ElectroCircuits started making a complete immersion testing instrument, the Immerscope (827a).

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* Farwell on another occasion made a similar comment to Fink of Alcoa (606a).

In the meantime, Petitioner, Alcoa, had been trying to purchase immersion equipment and had placed an order with Sperry in 1953 (604a), but the equipment was not delivered until 1955 (731a). An Immerscope, however, was delivered by ElectroCircuits in the summer of 1954, and this suit was brought on September 20, 1954.

As a result of the financial drain incident to this suit, ElectroCircuits was forced into an agreement with Curtiss-Wright Corporation which agreed to finance the defense of the suit, in return for certain sales and manufacturing rights (773a).

ARGUMENT.

FIRST QUESTION.

Is trade unreasonably restrained by an agreement through which a patent holder requires that purchasers of certain immersion equipment from another also have or purchase expensive and 80% unusable contact equipment from the patent holder, where:

(1) Aircraft manufacturers in the interest of public safety need and desire immersion equipment because it is uniquely suitable for detecting internal flaws in aircraft forgings;

(2) The patent holder has a 100% monopoly in the field of pulse-echo inspection of metal articles such as aircraft forgings and charges that its patents are infringed by such immersion equipment, but is unable or unwilling to make immersion equipment and makes only contact equipment which is not suitable for testing aircraft forgings;

(3) A new company, being ready and able to market immersion equipment, assumes without investigation that the infringement charges are justified and goes to the patent holder to request a license; and

(4) That patent holder while refusing to license on a royalty basis uses the agreement to hold the new company in a subservient position and to forestall challenge of its patents?

The opinion of the Court of Appeals is in direct conflict with the policy of this Court in failing to refer to the circumstances surrounding the agreement in question, and the unreasonableness thereof as it applied in practice.

This Court has consistently followed the general principle that although the owner of a patent or copyright may be under no duty to grant any rights under his patent or copyright, he must if he does grant such rights, grant them in such a manner and under such circumstances as not to constitute an unreasonable restraint of trade. In all such cases, this Court has examined all of the circumstances and practical effects of the agreement or practice being considered.

For example, in *Interstate Circuit, Inc.* v. *U. S.*, 306 U. S. 208 (1939), the copyright owner of motion picture films entered into an agreement with theater owners for first-run exhibitions of "feature" pictures. The copyright owner agreed that in licensing other theaters for subsequent runs of the same pictures, such other theaters were to observe a minimum price of admission and abstain from presenting the picture so licensed with any other feature picture. After examining in considerable detail the surrounding circumstances, this Court held the agreement to be illegal because the restrictions imposed on the subsequent-run exhibitors constituted an unreasonable restraint of trade.

In *Ethyl Gasoline Corp.* v. *U. S.*, 309 U. S. 436 (1940), a license system involving a patent owner, gasoline refiners and jobbers was held illegal, where the patent owner did not merely exploit its patents by manufacturing the fluid covered by them, but granted rights to refiners and jobbers under such terms as to constitute an unreasonable restraint on trade. This Court again carefully examined all of the surrounding circumstances. For example, it gave consideration to a question of whether the license system was justified by provisions which might serve to protect the health of the public in connection with the distribution of the gasoline containing the fluid, which was poisonous in nature.

In *U. S.* v. *Masonite Corp.*, 316 U. S. 265 (1942), an owner of a patent on a product through agreements with competitors undertook to constitute the competitors as its agents for the sale of the patented product through their respective sales organizations at prices fixed by the patent owner. After considering the circumstances, this Court held the agreements to be illegal. At 316 U. S. 277, this Court stated the rule that:

> "But it will not do to say that, since the patentee has the power to refuse a license, he has the lesser power to license on his own conditions. There are strict limitations on the power of the patentee to attach conditions to the use of the patented article."

This principle was again stated in *Transwrap Corp.* v. *Stokes Co.*, 329 U. S. 637 (1947), at page 643, as follows:

> "The fact that a patentee has the power to refuse a license does not mean that he has the power to grant a license on such conditions as he may choose."

In *Mercoid Corp.* v. *Mid-Continent Co.*, 320 U. S. 661 (1944), an exclusive licensee under a combination patent granted sub-licenses only to purchasers of an unpatented element of the combination, and paid royalties to the patent owner based upon sales of the unpatented element. This Court, after careful consideration of all surrounding circumstances, held that the patent was unenforceable.

In *United States* v. *Paramount Pictures, Inc.*, 334 U. S. 131 (1948), this Court held that a distributor of copyrighted films could not license or offer to license one picture or group of pictures on condition that the licensee also license another picture or group of pictures released by the distributor during a given period, since it would prevent competitors from bidding on single-feature pictures on their individual merits.

In each of the above cases, the owner of the patent or

copyright might have refused to grant any license, and the contracts or agreements in question did serve to promote some trade or commerce which might not have existed had the owner of the patent or copyright refused to grant any license. Nevertheless, the Court held that under the circumstances of the respective cases (except *Transwrap*), the agreements constituted an unreasonable restraint of trade.

We now invite consideration of the circumstances of this case:

(1) Aircraft Manufacturers Needed and Desired Immersion Equipment Because It Is Uniquely Suitable for Detecting Flaws in Forgings.

That immersion equipment is uniquely suitable for detecting flaws in aircraft forgings is shown by the testimony of Hitt (441a, 445a, 446a, 456a), confirmed by the District Court (805a). The demand by aircraft companies is shown by the testimony of Hitt (447a-449a, 461a, 465a-466a), the testimony of Gauthier (495a-496a) and the subsequent purchase of immersion equipment by aircraft companies (DX-XXX, 1278a).

(2) Sperry Had a 100% Monopoly in the Field of Pulse-Echo Inspection But Was Unable or Unwilling to Make Immersion Equipment.

Sperry's sales manager and president conceded that the only apparatus in competition with the Sperry contact instrument, the Reflectoscope, is the Immerscope (647a, 718a) which was not made at the time of the restrictive agreement. However, Sperry was unable or unwilling to market immersion equipment. It accepted an order from Alcoa in 1953, but did not deliver until 1955 (731a). And that equipment, the UW Reflectoscope, is not suitable for production line testing (499a, 500a, 513a).

(3) ElectroCircuits Being Ready and Able to Market Immersion Equipment Assumed Without Investigation That Sperry's Charges Were Justified and Went to Sperry to Request a License.

When ElectroCircuits was ready to market immersion equipment in May 1952, Richards, its president, went to New York to request a license (Richards, 651a-655a; District Court Opinion, 826a). It was not until 1953 that Richards obtained opinions that the patents were invalid (661a, 662a, 664a).

(4) Sperry Refused to License on a Royalty Basis and Used the Agreement to Hold ElectroCircuits in a Subservient Position to Forestall Challenge of Its Patents and Its Monopoly.

Sperry's purpose in refusing to license on a royalty basis and in entering into the agreement is shown by the circumstances. In entering into the agreement allowing ElectroCircuits to sell immersion equipment on a limited basis, Sperry recognized (1) that it was unwilling or unable to market such equipment itself; and (2) that there was a demand for such equipment and a threat of competition from ElectroCircuits. If Sperry wanted to supply the equipment, or if there was no threat of competition, Sperry would not have entered into the agreement, but would merely have refused the license outright.

It is shown by the circumstances that Sperry's purpose was to hold ElectroCircuits in a position where it could not compete effectively and where it could not challenge Sperry's patents or its monopoly.

As found by the District Court (773a, 826a), the restrictive agreement requires that a purchaser of the Wide Band Converter have or purchase a Sperry Reflectoscope which

is then 80% useless with only the oscilloscope portion being used. If the purchaser already had a Reflectoscope, it was tied up in its use with the Wide Band Converter, and could not be used for other purposes. If he did not have one, he was forced to purchase one. The Reflectoscope cost about $5700, making a total cost to a purchaser of $11,300. A complete instrument, the Immerscope, was later put on the market for $6000 (682a). Thus, the total cost to a purchaser was almost doubled. A Sperry letter admits that "the proposition we have given you suggests that you buy an automobile to get the engine" (DX PPP1, 1267a).

We submit that the restrictive agreement clearly constituted a violation of Title 15 U. S. C., Section 2 (printed in the Appendix hereto) and a misuse of the patents in suit. It imposed harsh and arbitrary terms on purchasers, and it placed ElectroCircuits in a position where it could not effectively compete with Sperry to preserve Sperry's monopoly of the field. And Sperry entered into the agreement with full knowledge of the need for immersion equipment for purposes of public safety, and of its own inability or unwillingness to supply such equipment. The fact that a patent holder has the right to refuse a license does not mean that he has the power to grant a license under such conditions as he may choose. *Transwrap Corp.* v. *Stokes Co.*, 329 U. S. 637, 643 (1947); *U. S.* v. *Masonite Corp.*, 316 U. S. 265, 277 (1942). The conditions imposed must not constitute an unreasonable restraint on trade as determined by an examination of surrounding circumstances and the practical effect of the conditions, following the policy established by this Court. *Interstate Circuit Inc.* v. *U. S.*, 306 U. S. 208 (1939); *Ethyl Gasoline Corp.* v. *U. S.*, 309 U. S. 436 (1940); *U. S.* v. *Masonite Corp.*, 316 U. S. 265 (1942); *Mercoid Corp.* v. *Mid-Continent Co.*, 320 U. S. 661 (1944); *U. S.* v. *Paramount Pictures, Inc.*, 334 U. S. 131 (1948).

Under the restrictive agreement, the price of complete immersion equipment to purchasers was almost doubled (682a). The damage to ElectroCircuits is clear since it obviously could have made more sales and or greater profits per sale with a license on a royalty basis, if at all reasonable. This damage was sustained when ElectroCircuits was a newly-formed company and in a critical stage of its development.

ElectroCircuits was additionally and severely damaged by the subsequent lawsuit which made it difficult to sell Immerscopes (673a) and forced ElectroCircuits into the contract with Curtiss-Wright (773a). This is not an ordinary case of a patent holder merely refusing to license an infringer and then bringing suit against the infringer. The circumstances show that Sperry entered into the agreement for the unlawful purpose of placing ElectroCircuits in a subservient position to forestall challenge of its patents and its monopolistic position. The suit was brought in furtherance of that purpose, to eliminate ElectroCircuits as a competitor. The right to damages arising from the filing of a suit in furtherance of a violation of the antitrust laws is recognized at page 248 of the Report of the Attorney General's Committee to Study the Antitrust Laws (1955), and by the Court of Appeals for the Tenth Circuit in *Kobe, Inc.* v. *Dempsey Pump Co.*, 198 F. 2d 416, 425 (C. A. 10, 1952); cert. den. 344 U. S. 837.

We submit that the patents are unenforceable because of misuse.

SECOND QUESTION.

Has Section 112 of the 1952 Patent Act (35 U. S. C. 112):

> (a) so "modified or rendered obsolete" the prior existing decisions of this Court holding functional patent claims invalid, that claims relying solely upon

a functional statement for their novelty are now valid, and

(b) modified the rule previously applied by this Court that infringement can only exist by the adoption of a novel feature disclosed in the patent and not by the adoption of techniques previously known to the prior art, or

(c) is the 1952 Patent Act a codification of prior existing law?

The decision of the Court of Appeals is in direct conflict with two basic principles of patent law as established by decisions of this Court, and it greatly enlarges the scope of monopoly obtainable through claims to a function or a desired result. The decision is particularly unjust and inequitable in that if it were upheld, Petitioners would be enjoined from making, selling or using immersion equipment until April 12, 1966,[1] the expiration date of the No. 3 Patent, even though immersion testing is taught in the prior art, is not disclosed in either Patent No. 1 or Patent No. 3, was first introduced commercially by Petitioner, ElectroCircuits, and even the equipment belatedly introduced by Respondent, Sperry, is not suitable for production line testing.

The decision directly conflicts with two basic principles of patent law, as follows:

(1) A claim to a function or a desired result is invalid. *Corning* v. *Burden*, 20 U. S. 503, 506 (1853); *Westinghouse* v. *Boyden Power Brake Co.*, 170 U. S. 537, 555 (1898); *Holland Furniture Co.* v. *Perkins Glue Co.*, 277 U. S. 245, 256-8 (1928); *General Electric Company* v. *Wabash*, 304 U. S. 364, 371 (1938); *United Carbon Co.* v. *Binney Co.*, 317 U. S. 228, 234 (1942); *Halliburton Oil Well Cementing Co.* v. *Walker*, 329 U. S. 1, 9 (1946).

1. Thus extending the monopoly of the No. 1 Patent, which expired in 1959, for seven years.

The decision of the Court of Appeals holds that this rule is abolished by that portion of Title 35, Section 112, which expressly permits "means" clauses in combination claims. It quotes with approval the commentary on the Act that decisions of this Court such as that in *Halliburton Oil Well Cementing Co.* v. *Walker*, 329 U. S. 1 (1946), are "modified or rendered obsolete".

The Commentary on the Act which is relied upon by the Court of Appeals was written by a Patent Office Examiner (Title 35 U. S. C. A. Patents, Sections 1 to 110, p. 1). The official reports of the Senate and House Committees, however, discuss in considerable detail the Sections of the new Act in relation to previous statutes and court decisions, but contain no suggestion that Section 112 changes the existing law. The revision notes appended to the reports merely state that "A new paragraph relating to functional claims is added." (U. S. Code Congressional and Administrative News, 82nd Congress, 2nd Session 1952, Legislative History Commentaries, 2394, 2412). There is no evidence of any specific legislative intent to abolish the law as established by the decisions of this Court.

We submit that there is nothing in Section 112 of the Patent Act which purports to abolish or change the rule that a claim to a desired result is invalid. Section 112 may permit greater liberality, so far as the *form* of *combination* claims is concerned. However, Section 112 retains the requirement of previous statutes that "the specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention". It does not affect the substantive rule that a claim to a function or result is invalid, as held by this Court in *General Electric Co.* v. *Wabash*, 304 U. S. 364 (1938); *United Carbon Co. v. Binney Co.*, 317 U. S. 228 (1942), and a long line of decisions previous thereto.

In this regard, the decision of the Court of Appeals is also in direct conflict with its own previous decisions. In *General Motors Corp.* v. *Estate Stove Co.*, 201 F. 2d 645 (C. A. 6, 1953), it held that claims directed to a function or result were invalid. In a rehearing of the case, reported at 203 F. 2d 912, it held that the claims were not saved by the portion of Section 112 of the new Act, and that the claims were invalid under the portion retained from previous statutes, as to "particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention".

The decision of the Court of Appeals also conflicts with decisions of the Court of Customs and Patent Appeals rendered subsequent to January 1, 1953, the effective date of U. S. C. 35, Section 112. In *In re Krodel*, 223 F. 2d 285, 288, 289 (1955); *In re Piazze*, 230 F. 2d 426 (1956); *In re Mason*, 244 F. 2d 733 (1957), that Court held that claims were invalid which expressed what is desired rather than what is actually done or what is necessary for the operation of the invention.

The decision of the Court of Appeals also conflicts with a statement of the Court of Appeals for the First Circuit in *Warren Co.* v. *Nashua Gummed & Coated Paper Co.*, 205 F. 2d 602 (C. A. 1, 1953). In that case, the Court held the claims in question to be valid, but stated that (p. 605):

> "The functional claims doctrine stems from the statutory requirement of long standing that an applicant for a patent must particularly point out and distinctly claim what he regards as his invention. See R. S. 4888, 35 U. S. C. 33, and now Title 35 U. S. C. 112. This requirement, the courts have repeatedly held, prevents a patentee from stating his invention in terms of the result he achieves instead of in terms of his method of achievement. But it does not forbid all statements of function, result or means in patent claims. What it forbids is the description of the 'crucial element' of a

> claim in terms of accomplishment rather than in terms of physical characteristics; it forbids a statement of function or result at the precise point of novelty. See *Halliburton Oil Well Cementing Co.* v. *Walker, supra.* The obvious purpose of the doctrine is to prevent a patentee from obtaining a monopoly over a wider area than he has pioneered."

Thus the decision of the Court of Appeals not only conflicts with decisions of this Court but also conflicts with its own previous decisions, the decision of the First Circuit Court of Appeals, and the decisions of the Court of Customs and Patent Appeals. We submit that it remains the law that a claim is invalid where directed to a function or a desired result.

(2) The decision of the Court of Appeals is also in direct conflict with the rule that *a device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art. Duff* v. *Sterling Pump Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 150 U. S. 221, 229 (1893); *Miller* v. *Eagle Manufacturing Co.*, 151 U. S. 186, 208 (1894).

The only possible basis for the findings of validity of the No. 1 and No. 3 Patents is in the provision of certain allegedly novel features (the direct contact method of Patent No. 1, and the "interposed member" of Patent No. 3 in contact with both crystal and part). Those features are not used in the Immerscope which uses the prior art immersion technique.

In finding infringement, however, the decision of the Court of Appeals makes no reference to these facts, and appears to base its conclusion on the fact that the patents and the Immerscope are directed to attaining the same general result, the testing of metal parts by the pulse-echo method. It appears to rely on the following quotation from

the decision of the Court of Appeals for the First Circuit in *Comptograph Co.* v. *Mechanical Accountant Co.*, 145 Fed. 331, 338 (C. A. 1, 1906):

> "If the infringing device performs the same function as the patented device, it is immaterial that it also performs some other function. It is still nonetheless an equivalent of the patented device, and an appropriation of the patented invention."

This quotation obviously does not apply in the factual situation of this case, and it is clear that the decision of the Court of Appeals is in direct conflict with the decisions of this Court in *Duff* v. *Sterling Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 105 U. S. 221, 229 (1893); and *Miller* v. *Eagle Manufacturing Co.*, 151 U. S. 186, 208 (1894).

In this respect, the decision of the Court of Appeals is also in conflict with its own previous decisions in *Pennington Engineering Co.* v. *Spicer Mfg. Corp.*, 165 F. 2d 59, 64 (C. A. 6, 1947) and *Corning Glass Works* v. *Federal Glass Co.*, 239 F. 2d 674, 675 (C. A. 6, 1956) where it set forth the rule that a device does not infringe where it follows the prior art.

We submit that the decision of the Court of Appeals is clearly in error in failing to apply these established principles. The effect of the decision is to permit a patentee to obtain an extremely broad monopoly covering any and all devices which produce a desired function or result, regardless of the structures actually used to produce such functions or results. Such a monopoly stifles the development of independent inventions and defeats the Constitutional purpose of the patent system—"To promote the Progress of Science and useful arts".

The Claims of the No. 1 Patent Must Be Construed Either as Invalid Because Directed to a Desired Result, or as So Limited as Not to Be Infringed.

Claims 1, 2, 3, 4, 10 and 11 of Patent No. 1 (847a) distinguish from the prior art *only* in a statement of *purpose* or *result* in the introductory clause thereof.

> "In a device for the interior inspection, expiration or measurement of a solid part to its maximum dimension is of the order of 10 feet or less, —." (In Claims 10 and 11 in suit, "An inch" is specified instead of "10 feet or less".)

Following that clause, each claim merely recites "means" or components which were old and well known, both alone and in combination, in the pulse-echo art. We need only go to the prior art Smith Patent No. 2,143,035 (DX K-8, 1049a) to show that such is the case. For example, compare claim 3 of the Smith Patent (1051a) with claim 4 of Patent No. 1 (852a), the most limited of the asserted claims.

This is confirmed by Firestone where he stated to the Patent Office that:

> "The only novelty expressed in claims 2 and 3 beyond the references, consists in the use of supersonic wave trains in the exploration of a part 'less thar 10 feet long'." (923a).

Claims 2 and 3 then under consideration do not differ patentably from the claims in suit.

Moreover, respondents have at no time called attention to any novel structure recited in the claims, nor is there any finding by the District Court or by the Court of Appeals that the claims of Patent No. 1 recite any novel structure. Indeed, neither decision contains any detailed consideration of the claims of any of the patents in suit.

It is clear also that Patent No. 1 was allowed by the Pat-

ent Office and was held to be valid by the Courts below because of results allegedly achieved, without regard to any structure recited in the claims which might have contributed to such results. Actually, there is evidence which shows quite clearly that the apparatus of Patent No. 1 was no improvement over the prior art.* The effect of this evidence is not considered in the opinions below, which rely entirely on notes as to tests made by Firestone several months *after* he filed his application with *improved* equipment.

We believe the findings of improved results are clearly erroneous. However, assuming *arguendo*, that Firestone did actually obtain such results, we submit that the claims are nevertheless clearly invalid.

The claims merely express what is desired rather than what is actually done or what is necessary for the operation of the invention. As stated by this Court in *General Electric Company* v. *Wabash*, 304 U. S. 364, 371 (1938):

> "But the vice of a function claim exists not only when a claim is 'wholly' functional, if that is ever true, but also when the inventor is painstaking when he recites what has already been seen, and then uses conveniently functional language at the exact point of novelty."

We submit that this rule is not "modified or rendered obsolete" as suggested in the opinion of the Court of Appeals.

Although we believe the claims to be clearly invalid as functional, we believe it noteworthy that if the claims could be construed as limited to a structure which might have accounted for the results allegedly obtained, they would clearly not be infringed. Considering the decisions below in a light most favorable to Respondents, it might be urged

* PX 58 (895a) and Firestone's testimony (548a-553a) show at best an approximate measurement of a four foot bar with apparatus as disclosed in Patent No. 1, whereas the District Court found (781a, 782a) and the 1938 Hydrographic Review (PX K-32, 1172a) shows that the prior art could measure six inches in water.

that claim 4 should be held valid because of the recitation therein of "effective contact". In attempting to justify his representations to the Patent Office, Firestone argued that the measurement of 1 16 inch, referred to in his representation to the Patent Office, was made possible through the good effective contact between the crystal and a "smooth steel plate" (753a). However, if claim 4 were construed as limited to such contact, it would clearly not be infringed by the Immerscope, which uses the prior art immersion testing method. A device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art. *Duff* v. *Sterling Pump Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 150 U. S. 221, 229 (1893); *Miller* v. *Eagle Manufacturing Co.*, 151 U. S. 186, 208 (1894).

We submit that the claims of the No. 1 Patent must be construed either as invalid because directed to a desired result, or as so limited as not to be infringed.

The No. 3 Patent Is Either Invalid or Not Infringed; Immersion Testing Follows the Prior Art and Does Not Involve Use of the "Interposed Member" Which Formed the Basis of the Finding of Invention of the Courts Below.

The decision of the Court of Appeals as to Patent No. 3 (PX 3, 865a) is clearly in error in failing to apply the two rules set forth above: (1) That a claim is invalid where directed to a desired result, and (2) That a device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art.

The decision observes that:

> "The principal distinguishing feature between Patents No. 3 and No. 1 is that a piece of metal of undisclosed size and shape, or a tank of undisclosed size containing a liquid of undisclosed content is placed between the crystal and the workpiece in Patent No. 3.

> The same combination of elements as is used in Patent No. 1 is used in this patent with the addition of the interposed member. It operates by the same fundamental principle. It produces a refinement of the same result. The question then arises as to whether or not this is invention. Would the adding of this element between the crystal and the workpiece be obvious to one ordinarily skilled in the art?"

Then, without reference to the claims and without reference to any of our prior art disclosures which were not cited by the Patent Office, the decision goes on to hold the patent valid solely because of representations made to the Patent Office as to results allegedly achieved.

After finding the patent valid on this basis, the decision states that:

> "There seems to be little question that the Immerscope infringes all of the claims of Patent No. 3. The Defendants virtually admit this in their argument on the validity of the claims of Patent No. 3 (Defendants' Brief p. 40)."

However, we made no admission of infringement. What we said was that:

> "According to the teachings of the No. 3 Firestone patent, a crystal 20 is disposed in a container 30 filled with liquid 31. The container 30 has an open bottom which is held against the flat surface of a part 10, with a gasket 32 being used to prevent leakage. The liquid 31 is described as one in which 'preferably attenuates supersonic waves'. Water, used in immersion testing, is not such a liquid (200a). Obviously, this arrangement cannot be used with irregularly shaped parts, nor is rapid scanning possible. Both are made possible only with immersion testing. Nevertheless, the claims of the No. 3 patent are so broad as to read literally on immersion testing. They merely call for 'delay means' interposed between the crystal and a 'bounded part' in a pulse-echo system. Such claims are utterly invalid."

We then went on to point out that the claims are completely anticipated by the Stocks and Rust 1935 publication (DX K-35, 1183a) which teaches the inspection of underwater layers of clay by pulse-echo equipment, exactly the same operation as in immersion testing. We further pointed out that immersion testing of *metal parts* was taught by Sokolov in a 1935 publication (1214a, 1215a, 1220a) and also in the Bergmann book (DX F, 1004a). *Sokolov also expressly suggested the use of the pulse-echo method in testing metal parts* (1202a).

These references taught immersion testing even before the No. 1 Patent, directed to the contact method. The No. 1 Patent was issued more than three years prior to the filing date of the No. 3 Patent and is also a reference thereagainst. In addition, immersion testing and its advantages over contact testing is very clearly described by Gotz in the German Journal "Akustische Zeitschrift" (DX K-42, 1229a), published in 1943, over 18 months prior to the filing date of Patent No. 3. Gotz, after describing difficulties with the contact method, such as the necessity of grinding the workpiece flat and non-uniform transmission of sound (1231a-1232a), then stated that:

> "In order to come up over these difficulties, direct connection of the sound transmitter and the workpiece was given up and the transmisison of sound was carried out by a fluid intermediate medium. It will be explained later how the normally poor sound transmission was improved as a result of the great difference of wave resistances. With good moistening of the solid object by the fluid, and this is possible, an unobjectionable and reproduceable transmission of sound can always be accomplished. An additional advantage is that it is possible to draw the transmitter continuously over the object tested and tested out in lines rather rapidly" (1232a-1233a).

Gotz then went on to describe an arrangement with the

sound transmitter and workpiece immersed in a tank of water.

It is thus shown that the public had clear teachings of immersion testing in a number of prior art references, the latest having been published more than 18 months prior to the filing date of Patent No. 3.

Nevertheless, the decision of the Court of Appeals holds the No. 3 Patent valid and infringed without reference to any of such prior disclosures, on the basis of an "interposed member" in *contact* with both the part and the crystal, and on the basis of alleged results set forth in an application for reconsideration filed in the Patent Office, which did not cite or consider the prior art references cited above.

The effect of this decision is to enjoin Petitioners from making, using or selling the Immerscope, the only equipment on the market suitable for testing aircraft forgings for defects on a production line basis.

We submit that the decision is clearly erroneous and constitutes a grave injustice. If the claims are construed so broadly as to read on the Immerscope, they are clearly invalid for lack of invention over, or anticipation by, the prior art disclosures of immersion testing, or as directed merely to a desired result or function. If the claims are construed as limited to the "interposed member" which formed the basis of the finding of invention, they are clearly not infringed. A device does not infringe where it does not use any novel feature of the patent, but instead follows the prior art. *Duff* v. *Sterling Pump Co.*, 107 U. S. 636, 639 (1882); *Derby* v. *Thompson*, 146 U. S. 476, 482 (1892); *Knapp* v. *Morss*, 150 U. S. 221, 229 (1893); *Miller* v. *Eagle Mfg. Co.*, 151 U. S. 186, 208 (1894); *Pennington Engineering Co.* v. *Spicer Mfg. Corp.*, 165 F. 2d 59, 64 (C. A. 6, 1947); *Corning Glass Works* v. *Federal Glass Co.*, 239 F. 2d 674, 675 (C. A. 6, 1956).

REASONS FOR GRANTING THE WRIT.

We submit that the record fully establishes the following two grounds for issuance of the Writ of Certiorari:

(1) THE PUBLIC SAFETY IS VITALLY AFFECTED BY THE OUTCOME OF THIS CASE.

If the decision of the Court of Appeals were upheld, Petitioners would be enjoined from making, selling or using immersion equipment until April 12, 1966, the expiration date of the No. 3 Patent in suit, and Respondents could proceed against any other who might make, sell or use such equipment. The record establishes, however, that Respondents' immersion equipment, the UW Reflectoscope, was not marketed until 1955 despite the request of aircraft manufacturers for such equipment as early as 1951 (447a-448a, 498a-499a, 600a-604a, 627a, 731a). There is uncontroverted testimony that the UW Reflectoscope is a complex bulky instrument suitable for laboratory use and large installations (452a-453a, 606a-607a, 246b), but not suitable for production line testing (499a-500a, 513a). Immersion testing is uniquely suitable for testing irregularly shaped parts, such as aircraft forgings (460a, 467a-468a). Hitt of Douglas Aircraft testified "It is the only way we know of doing it: is by immersed testing." (456a). The outcome of this case thus affects the availability of equipment for the testing of aircraft parts for defects, and directly affects public safety.

(2) THE COURT OF APPEALS HAS DECIDED FEDERAL QUESTIONS IN DIRECT CONFLICT WITH DECISIONS OF THIS COURT, GREATLY EXTENDING THE SCOPE OF MONOPOLY OBTAINABLE THROUGH PATENTS, AND THE SCOPE OF PERMISSIBLE ACTIVITIES OF PATENT OWNERS IN LIMITING COMPETITION.

The decision of the Court of Appeals is in direct conflict with decisions of this Court, as well as its own decision, a decision of the First Circuit Court of Appeals and those of the Court of Customs and Patent Appeals, in holding claims valid under Title 35, Section 112, where they define nothing new except in terms of functions and desired results. The effect of this holding is to permit a patentee to obtain an extremely broad monopoly covering all devices which produce desired results, regardless of the structure actually used to produce such results. Such a monopoly stifles the development and use of independent inventions and defeats the Constitutional purpose of the patent system—"To promote the Progress of Science and useful Arts".

The decision is particularly unjust and inequitable in that the only possible basis for a finding of invention is in the use of certain features (the contact method of the No. 1 Patent, and the "interposed member" in contact with the crystal and part in the No. 3 Patent), and in a finding of infringement by the Immerscope which does not have such features but which follows the prior art. In this regard, the decision also directly conflicts with decisions of this Court.

The decision further conflicts with decisions of this Court in permitting a patent holder to impose harsh and unreasonable conditions upon the grant of a license, without reference to the practical effect of such conditions, the surrounding circumstances, and the extension of monopoly obtained by the patent holder.

The overall effect of the decision is to greatly enlarge the monopoly which lawfully can be obtained and extended through patents, in a field which is small but extremely important in industry and in connection with public safety.

CONCLUSION.

The Petition should be granted—

(1) to correct the clear errors of law of the decisions below which would unduly expand the scope of monopoly obtainable through patents and the scope of permissible activity of patent owners in limiting competition;

(2) to provide free competition in the manufacture and sale of immersion equipment which follows the prior art and which is of vital importance to industry and to public safety; and

(3) to prevent enforcement of patents misused in violation of the antitrust laws.

Respectfully submitted,

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APPENDIX.

DEFENDANTS-APPELLANTS' PETITION FOR REHEARING.

Now come defendants-appellants and respectfully petition this Court for a rehearing and reconsideration of its decision of November 22, 1960 insofar as that decision affirms the judgment of the District Court in reference to the No. 3 patent in suit — the Firestone Patent No. 2,467,301 (Px. 3; 865a).

This petition is grounded on the fact that the holding of *infringement* of said No. 3 patent by defendants' accused Immerscope has the direct effect of improperly prolonging the monopoly of the now expired No. 1 Firestone Patent No. 2,280,226 (Px. 1; 847a) for a period of six years in the important field of immersed inspection, a technique known to and practiced in the ultrasonic art long prior to the invention of said No. 1 patent.

This Court in its decision recognized that the No. 1 patent (which *issued* more than three years prior to the filing of the application for the No. 3 patent) was prior art as to the No. 3 patent and in such respect stated as follows at page 14 of its Opinion dated November 22, 1960:

> "The principal distinguishing feature between patents No. 3 and No. 1 is that a piece of metal of undisclosed size and shape, or a tank of undisclosed size containing a liquid of undisclosed content is placed between the crystal and the workpiece in patent No. 3. The same combination of elements as is used in patent No. 1 is used in this patent with the addition

> of the interposed member. It operates by the same fundamental principle. It produces a refinement of the same result. The question then arises as to whether or not this is invention. Would the adding of this element between the crystal and the workpiece be obvious to one ordinarly skilled in the art?"

The Court then found that "the adding of this element between the crystal and the workpiece" did amount to invention and concluded (Opinion, p. 15) "that all claims of patent No. 3 are valid."

Assuming *arguendo* that this conclusion is correct, we respectfully submit that a finding of infringement based upon the immersion of the workpiece and the crystal in a tank of water in exact accordance with ultrasonic practices long prior to Firestone results in a grave injustice not only to defendants but to the general public. Specific reasons in support of this position follow.

First of all, as recognized by the Court, *Firestone does not disclose immersion* at all. The element which he *added* to the old combination of the No. 1 patent was an "interposed member" consisting of a "piece of metal" or a tank containing a "liquid of undisclosed content" (Opinion, p. 14). As shown in the No. 3 patent, the workpiece is *not immersed* but the tank 30 is merely "held against the solid 10 (the workpiece) by means of such as gasket 32 to prevent leakage" (Fig. 5; 865a; Col. 4, lines 16 to 31; 867a). We submit that the claims of the No. 3 patent were allowed on the basis of these *interposed members* and not on the basis of *immersion* which was then old and well known in the art of ultrasonics.

For example, the Langevin et al. Patent No. 1,858,931 of May 17, 1932 (955a to 963a) discloses echo type ultrasonic apparatus wherein the crystals 11-11' (955a; Fig. 1) are submerged and where the disclosed apparatus is used for various purposes (963a; Col. 6, lines 46 to 62) includ-

ing the "exploitation of the bottom in view of submarine work" (here the bottom of the ocean or the submarine detected is the submerged "workpiece") and the "Determination of the distance of submarine obstacles in general."

In October 1943, nearly three years prior to the filing of the application for the No. 3 patent, the desirability and technique of immersed inspection was disclosed in detail in "Akustiche Zeitschrift" (1229a to 1236a) where we find a discussion of the difficulties encountered in contact inspection (1231a to 1232a) and a direction that the parts to be ultrasonically tested be placed in "a container for fluid which is carrying water * * *" and which also states that the oscillations required "can be produced in water only with quartz" (1233a). This article also (1236a) refers to "measurements made on iron sheets of different thickness in water."

By 1935 a detailed discussion of a large number of immersed ultrasonic tests was published in "Die Natur Wissenschaften" (1183a to 1198a). Here is disclosed echo sounding "to examine schools of fish" (1183a) (the immersed workpiece) or to determine the depth and characteristics of the ocean bottom (1185a) — again the workpiece under ultrasonic examination.

Sokolov in 1935 shows that one could transmit waves into a metal part either by placing the crystal in effective engagement with the part (1199a to 1201a; 1218a) or by immersing both the crystal and the part in a tank of liquid (1214a; 1215a; 1220a). Sokolov set forth the advantage of immersion testing of rough surfaced forgings. Sokolov elsewhere taught the advantage of rapid scanning (Bergman book, Dv. F, 1004a). Sokolov also expressly suggested the use of the pulse echo method in testing metal parts (1202a).

It thus becomes apparent that holding the claims of the No. 3 patent infringed by the *immersed* inspection of defendants' Immerscope amounts to a holding that "although the public, including defendants, is free to make, use and sell the structure of the expired No. 1 patent,[1] it cannot *use* that structure in immersed inspection as fully taught by the prior art long prior to Firestone."

The injustice of such a holding is obvious. Defendants do not "add an element" (Opinion, p. 14) to the old combination of the No. 1 patent. They merely *immerse* the crystal and workpiece in water exactly as taught in the ultrasonic art since as early as 1932.

The holding of validity of the claims of the No. 3 patent finds support only if those claims are construed to mean what they plainly specify, an additional element consisting of "means interposed between said transmitting means and said * * *". Certainly the Examiner in allowing those claims did not intend that they include the *immersion* technique, old and well known in the prior art pertaining to ultrasonic testing and measurement and where the crystal and the workpiece are both placed in a body of water. The No. 3 patent neither shows nor suggests such

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1. The Supreme Court in *Scott Paper Co.* v. *Marcalus Manufacturing Co., Inc., et al.*, 326 U. S. 249; 256-7, stated as follows as to the status of an expired patent:

> "It is thus apparent that the patent laws preclude the patentee of an expired patent and all others including petitioner from recapturing any part of the former patent monopoly; for those laws dedicate to all the public the ideas and inventions embodied in an expired patent. They do not contemplate that anyone by contract or any form of private arrangement may withhold from the public the use of an invention for which the public has paid by its grant of a monopoly and which has been appropriated to the use of all. The rights in the invention are then no longer subject to private barter, sale, or waiver. Cf. *Phillips Co.* v. *Grand Trunk R. Co.*, 236 U. S. 662; *Midstate Horticultural Co.* v. *Pennsylvania R. Co.*, 320 U. S. 356, 361; *Brooklyn Bank* v. *O'Neil*, 324 U. S. 697, 704. * * *"

an arrangement. To interpret the claims as infringed requires a finding that it involves invention to immerse the crystal and workpiece of the prior art No. 1 patent in the same manner and for the same purpose that the crystals and workpieces were immersed in ultrasonic testing apparatus of the prior art. This is not invention.

Incidentally, the No. 3 patent fails completely to disclose apparatus capable of achieving one of the principal advantages of *immersed* inspection — the ability to inspect irregularly shaped parts on a production line basis (446a). This, as taught by the prior art, is readily accomplished by the *immersion* technique — but could not be even approximated by moving the "interposed means", 16-16' and 30 (865a) of the Firestone apparatus from place to place along the workpiece 10.

We further respectfully suggest that the Opinion of this Court is based upon reasoning that precludes a holding of *both validity* of the No. 3 patent *and infringement* thereof by defendants' Immerscope and the immersion technique by which that instrument is largely used.* In approving the findings and conclusions of the District Court as to patent No. 1 this Court (Opinion, p. 20) found in effect that "the thin film of oil or wax between his crystal and workpiece" as used by Firestone was the equivalent of the "sound conducting liquid, usually water" used with the Immerscope. Now by finding *infringement* of the No. 3 patent the judgment here affirmed will prevent the public from using the structure of the expired No. 1 patent in a manner found equivalent to that patent in finding infringement of said No. 1 patent by defendants'

* The stipulation (16a to 49a) refers only to the principal and intended use of the Immerscope which is immersed inspection and this petition is particularly directed to such use. The use of "putting a stream of water between them" is not even mentioned in the stipulated Immerscope manual and is apparently a special use incidentally referred to at 167b and 254b.

Immerscope. As we have pointed out previously, the immersion technique was old in the ultrasonic inspection art long prior to Firestone. Here it would seem that we have an apt illustration of the controlling principle of patent law of "that which infringes, if later, anticipates if earlier."

Peters v. *Active Mfg. Co.*, 129 U. S. 530; 537.
Ide v. *Ball Engine Co.*, 149 U. S. 550; 556.
Knabb v. *Morss*, 150 U. S. 221; 228.
Miller v. *Eagle*, 150 U. S. 186; 203.
Perfect Circle Co. v. *Hastings Mfg. Co.*, 88 F. 2d 813; 816 (C. A. 6, 1937).

It thus follows that if the Immerscope (later than the No. 1 patent) infringes the No. 1 patent *on the basis noted*, then the No. 1 patent which is prior art as to the No. 3 patent must anticipate the No. 3 patent *if that patent is to be construed to likewise be infringed by the Immerscope.*

Where, as here, a patent is held valid over the prior art, that same prior art must be considered in determining the question of *infringement*. *Holley* v. *Goldner Sales Co.*, 107 F. 2d 494; 497 (C. A. 6, 1939). As in the *Holley* case, the immersed inspection used by defendants "was known in the prior art". The holding of validity here must, in the light of the prior art, be limited to the special "interposed means" disclosed in the No. 3 patent. As so limited, that patent is not infringed by defendants' Immerscope as used in *immersed inspection* in accordance with the prior art. See also *The Cincinnati Milling Machine Co.* v. *Turchan*, 208 F. 2d 222; 228 (C. A. 6, 1953); *Kalle & Co.* v. *The Multazo Company, Inc.*, 109 F. 2d 321; 327 (C. A. 6, 1940).

This case provides a striking example of the necessity of considering the questions of validity *and* infringement

as *related* problems. This was not done by the District Court. That Court first held the claims of the No. 3 patent *valid* on the basis of the "interposed members". Then in finding *infringement* by the immersion technique, it applied the doctrine of equivalents and erroneously disregarded the admonition of the Supreme Court in *Graver Tank & Mfg. Co., Inc., et al. v. Linde Air Products Co.*, 304 U. S. 605, where Mr. Justice Jackson, in discussing the doctrine of equivalents, stated as follows at pages 608 and 609:

> "• • • The wholesome realism of this doctrine is not always applied in favor of a patentee but is sometimes used against him. Thus, where a device is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way, but nevertheless falls within the literal words of the claim, the doctrine of equivalents may be used to restrict the claim and defeat the patentee's action for infringement. *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 568. • • •"

Here we have a parallel situation. Regardless of response to the literal words of the claims, defendants' Immerscope, in its immersed inspection operation, follows the prior art. Since the *apparatus* is now free of injunction by the expiration of the No. 1 patent (which this Court has held provides "the same combination of elements" operating by the "same fundamental principle" as the No. 3 patent (Opinion, p. 14)), enjoining the *use* of such apparatus in accordance with the prior art would result in a grave injustice to defendants and the public generally.

For reasons stated herein, we respectfully request a rehearing as to Patent No. 3 to the end that the Opinion of this Court dated November 22, 1960 may be modified to include a finding that on the basis on which the claims

of the No. 3 patent were held valid, there is no infringement of those claims by defendants' Immerscope as used in accordance with the immersion procedure of the prior art.

Respectfuly submitted,

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ORDER DENYING DEFENDANTS-APPELLANTS PETITION FOR REHEARING.

Before: MILLER, *Chief Judge*, MCALLISTER and CECIL, *Circuit Judges.*

Defendants-Appellants filed a petition for rehearing of the decision of this Court insofar as it affirmed the judgment of the District Court as to patent in suit No. 2467301, sometimes referred to as patent No. 3. The principal question raised involves the infringement of that patent.

This Court found that patent No. 3 was valid and infringed. (Opinion reported at 285 F. 2d 911, 929, 923.)

The questions of validity and infringement of this patent having been fully considered and discussed in the opinion of the trial judge, 171 F. Supp. 901, 920, 923, and in the opinion of this Court, *supra*, the petition for rehearing of the defendants-appellants is hereby denied.

LESTER L. CECIL,
Circuit Judge.

STATUTES.

15 U. S. C. Section 2.

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding fifty thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

15 U. S. C. Section 15.

Any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.

15 U. S. C. Section 26.

Any person, firm, corporation, or association shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws, including sections 13, 14, 18, and 19 of this title, when and under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity, under the rules governing such proceedings, and upon the execution of proper bond against damages for an injunction im-

providently granted and a showing that the danger of irreparable loss or damage is immediate, a preliminary injunction may issue: *Provided*, That nothing contained in sections 12, 13, 14-21, 22-27 of this title shall be construed to entitle any person, firm, corporation, or association, except the United States, to bring suit in equity for injunctive relief against any common carrier subject to the provisions of chapters 1 and 8 of Title 49, in respect of any matter subject to the regulation, supervision, or other jurisdiction of the Interstate Commerce Commission.

35 U. S. C. Section 101.

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U. S. C. Section 102 (a) and (b).

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

* * * * *

35 U. S. C. Section 103.

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject mat-

ter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35 U. S. C. Section 112.

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U. S. C. Section 154.

Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, for the term of seventeen years, of the right to exclude others from making, using, or selling the invention throughout the United States, referring to the specification for the particulars thereof. A copy of the specification and drawings shall be annexed to the patent and be a part thereof.

Office Supreme Court, U.S.
FILED
SEP 20 1961
JAMES R. BROWNING, Clerk

IN THE

Supreme Court of the United States

OCTOBER TERM, 1961

No. 316

ALUMINUM COMPANY OF AMERICA, ELECTRO-CIRCUITS, INC., and CURTISS-WRIGHT CORPORATION,

Petitioners,

vs.

SPERRY PRODUCTS, INC., FLOYD A. FIRESTONE and UNITED AIRCRAFT CORPORATION,

Respondents.

BRIEF OF RESPONDENT SPERRY PRODUCTS, INC. IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT FILED AUGUST 14, 1961.

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OPINIONS BELOW

Opinion of Court of Appeals, 285 F. 2d 911.

Opinion of District Court, 171 F. Supp. 901.

OTHER MATERIALS

House Report No. 1923, 82nd Congress, 2nd Session, pages 5 and 19.

STATUTE

35 U. S. C. 112:

"§ 112. SPECIFICATION

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

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BRIEF OF RESPONDENT SPERRY PRODUCTS, INC. IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT FILED AUGUST 14, 1961.

Petitioners seek review of the judgment of the Court of Appeals for the Sixth Circuit in this case in so far as it affirmed:

(a) a District Court judgment dismissing a patent misuse defense and a counterclaim of ElectroCircuits, Inc. for alleged violation of the antitrust laws; and

(b) a District Court judgment of validity and infringement of U. S. Patents 2,280,226 (referred to as patent No. 1) and 2,467,301 (referred to as patent No. 3).

Respondent Sperry Products, Inc., plaintiff-appellee in the proceedings below, opposes the grant of petition for

writ of certiorari herein on the ground that there is no important public question, no conflict of decision and no other reason to warrant this Court reviewing any part of the case below.

This Court is merely being asked to act as an appellate court to review factual decisions as to which both the District Court and the Court of Appeals were in agreement.

Statement of Facts

The important fact, for purposes of the petition, is that both the Trial Court and the Court of Appeals concurred in finding on the facts that patents Nos. 1 and 3 (the only patents to which the petition is directed) are valid and are infringed by petitioners and in finding on the facts that the defense of misuse and the counterclaim based thereon are without merit.

Petitioners do not dispute the concurrence of findings; the petition asserts (p. 6):

> "The Opinion of the Court of Appeals (285 F. 2d 911) affirms the District Court with respect to its findings of validity and infringement of the asserted claims of Patents Nos. 1, 3 and 4, affirms the District Court in its dismissal of the misuse defense and counterclaim, • • •".

In their detailed "Statement of Facts" petitioners attempt to paint a factual picture creating the impression that both the Trial Court and the Court of Appeals were wrong in their holdings. We point out that petitioners' statement is an unreliable guide to the facts. We shall not take the time and space to point out each error but shall confine our remarks to a discussion of the question whether any reason exists why this Court should concern itself with the case.

Argument

Petitioners' Basic Contentions and Asserted Reasons for Granting the Writ Are Without Foundation

Petitioners set forth two reasons for the grant of the Writ on page 5 of the petition under the heading "Introduction" and set them forth again somewhat more at length on pages 31-32 under "Reasons for Granting the Writ".

1. Petitioners' first reason is the assertion "That the public safety is vitally affected by the outcome of this case . . .".

We submit that, entirely apart from the spuriousness of the label "public safety",* this is not true.

It is not true as to petitioners' "First Question"—namely, whether trade was unreasonably restrained by a particular agreement. The agreement asserted to be illegal existed only nine months (171 F. Supp. at 932);** it affected doubtfully and at most the sale of only one piece of apparatus (*Ibid.* at 932); there is no evidence that it ever injured petitioners or anyone else (171 F. Supp. at 938); both lower courts held that it never unreasonably restrained trade (Trial Court, 829a, Court of Appeals, 285 F. 2d at 926-7); and, in any event, the agreement terminated in November, 1953 (664a)—over seven years ago!

There is obviously no matter of public safety currently involved in the First Question—nor was there at any time.

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* The alleged "public safety" aspect relied on by petitioners is that, among the many uses of respondent's invention, is the use to test aluminum forgings to be used in airplanes.

** In this brief, citations to the record are citations to the record as printed for use in the Court of Appeals, namely, appellants' appendix denoted by suffix "a" and appellees' appendix denoted by suffix "b". Citations to the opinions of the Court of Appeals and District Court refer to those opinions as printed in the Federal Reporter.

Likewise, it is not true that anything involved in petitioners' "Second Question" affects public safety—the "Second Question" being whether the patents should have been held valid and infringed in view of Section 112 of the 1952 Patent Act. The holding of patent validity and patent infringement complained of does not deprive the public of apparatus needed for public safety* or for any other pur-

* The contention that the public needs petitioners' apparatus is grounded on a basic factual error that runs through petitioners' whole presentation, namely, that so-called "immersion" equipment is unique with petitioners, that "immersion" equipment is needed to test aluminum forgings and that the respondent Sperry Products, in manufacturing apparatus under the patent in suit, made apparatus which could not be used for "immersion" testing and refused for years to produce such equipment as requested by the aircraft manufacturers. These assertions are contrary to the record and both courts held contrary to the petitioners' contention (171 Fed. Supp. at 920-21; 285 F. 2d at 925). The fact is that the equipment made by Sperry under the patent in suit is capable of use in "immersion" testing (287b) and, on the testimony of petitioners' own witness, Sperry apparatus was used for "immersion" testing before petitioners made any so-called immersion equipment (see photo of Sperry equipment being used for immersion testing—D22 1242a—and testimony of defendants' witness Hitt, 481a, 447a, 449a-451a; Richards, 664a-665a). Sperry did furnish improved apparatus in accordance with the request of aircraft manufacturers; the reason that it was different than petitioners' Immerscope is that, at the request of the aircraft manufacturers, it added equipment making it generally more useful, and consequently larger, than petitioners' (235b; 252b). The Wide Band Converter developed by ElectroCircuits was not necessary to make the Sperry apparatus work for immersion testing but rather was developed in order to give the Sperry apparatus a wider band of frequencies so as to permit the detection of flaws closer to the surface of the metal being tested (250b; 286b-287b). Sperry's apparatus had various ranges but some manufacturers desired an even greater range of frequency—hence, the Wide Band Converter, and hence the later Sperry apparatus made at the request of the airplane manufacturers with more ranges.

Both petitioners' Immerscope and Sperry's Reflectoscope are used in immersed and in contact testing (253b; 340b). Petitioners' witness, Mr. Cline of Aluminum Company of America testified that that company uses both the Sperry apparatus (the UW) and the petitioners' apparatus (the Immerscope). He testified (246b):

> "We like both instruments, and we use them where we feel they are best fitted. In other words, if the UW is too large for a certain installation, then we may go to the immerscope because it is a smaller unit and weighs much less. * * *"

pose. There are other kinds of apparatus in use in competition with the patented apparatus (161b; 180b; 230a-231a; 233a; 310b; 337b); respondent is in a position to supply the demand for the apparatus in controversy; licenses are available to petitioners, as well as to others, under any still existing patent to make and use the apparatus;* moreover, the basic patent No. 1 on which petitioners base their whole argument concerning Section 112 expired April 21, 1959—over two years ago!

The plain fact is that both the questions presented by petitioners are stale, moot questions in so far as any possible effect on the public is concerned.

It is quite apparent that petitioners petition this Court merely to continue the litigation in an effort to avoid paying a fair royalty for their appropriation of the inventions of the patents in suit.

2. Petitioners assert as their second reason for the granting of the Writ (p. 5 and p. 31) that the Court of Appeals, in holding patent No. 1 valid and infringed, has greatly extended the scope of the monopoly obtainable through patents and that, in doing this, it "has decided Federal questions in direct conflict with decisions of this Court".

Consideration of the facts shows that this is not so.

The petitioners here attempt to argue that the 1952 Patent Act, and particularly Section 112 thereof, was merely a codification of the prior law and that under the prior decisions of this Court, the decisions of the Court of Appeals and the Trial Court were wrong.

The reports of the House and Senate Committees make it clear that the 1952 Patent Act was not merely a codifica-

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* Although there is nothing in the record on this, the respondent's policy of granting licenses is well-known to petitioner Curtiss-Wright inasmuch as a license has been offered to it—and copies of other granted licenses have been furnished to it as part of the negotiations.

tion. The House report states (82nd Congress, 2nd Session, House Report No. 1923, p. 5):

> ". . . there are a number of changes in substantive statutory law."

And the Revision Note states in the same House Report concerning Section 112 (p. 19):

> "A new paragraph relating to functional claims is added."

The new paragraph in Section 112 is, in part, as follows: (See full text of Section 112 *ante*, p. ii.)

> "An element in a claim for a combination may be expressed as a means or step for performing a specified function, without the recital of structure, material, or acts in support thereof. . . ."

The assertions made in the petition concerning the ***broadening*** nature of the Act and an adverse public effect given to it by the court below are baseless. The Act is new in permitting functional *language* in claims but the Act does not make the patent *monopoly* as broad and sweeping as the functional language which it permits in the claims. On the contrary, the Act specifically guards against any broadening of the monopoly by providing:

> "and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

The court below applied this statutory limitation to the language of the claims in suit and found (285 Fed. 2d at 916):

> "We consider that the elements of the combination constituting the claimed invention are sufficiently defined and described in the specifications to support the claims in suit as stated."

And, in determining infringement, namely the scope of the monopoly, the Court was careful to apply the same statutory limitation. The Court noted (p. 923): "The pertinent question here is whether the Immerscope follows the teachings of plaintiffs' patents" and cited numerous decisions *including decisions of this Court* to the effect that "an infringement . . . 'is a copy of the thing described in the specification of the patentee . . . with such variations as are consistent with its being in substance the same thing' ".

The decision was not based on any thought that Section 112 changed the test of infringement—but rather was based on the time honored law many times announced by this Court.

We are led to comment, as we did with respect to petitioners' first reason for granting the Writ, that this reason presents no question of public interest to warrant consideration by this Court but is merely an attempt by petitioners to avoid paying fair royalty for their appropriation of the inventions of the patents in suit.

Also, we note that the question presented is stale as far as the public is concerned; the only patent in suit involved in the interpretation of Section 112 of the 1952 Patent Act is patent No. 1 and this patent expired in April of 1959—over two years ago.

Brief Comment on the Questions Presented

First Question

Petitioners' "First Question" is:

"Is trade unreasonably restrained by . . ."

the particular fact situation of the present case.

Petitioners do not contend that any conduct of Sperry was *per se* objectionable or that the Court of Appeals

failed to apply the applicable law. Petitioners' only criticism of the Court of Appeals is (p. 12) that the Court of Appeals "failed to refer to the circumstances surrounding the agreement in question and the unreasonableness thereof as it applied in practice."

This criticism of the Court of Appeals is completely without foundation as immediately appears from consideration of the opinion of the Court of Appeals itself.

The Court of Appeals (p. 926) quoted at length from the extensive *factual* findings of the District Court saying:

> "Another claim of the defendants is that Sperry imposed a 'tying' agreement upon Electro Circuits and that this agreement is illegal and constitutes the misuse of the Sperry patents, and it is a violation of the anti-trust laws. In this connection the trial court made the findings as follows:"*

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* The findings of the Trial Court are as follows (171 F. Supp. at 931-33):

"Electro Circuits was organized in California in 1951. It commenced active operations in that state in July 1951. Its first development was a weld inspection apparatus which was followed by the development of a Wide Band Converter and the Immerscope. These devices operate on the principle of the pulse echo method of ultrasonic testing. At the time of its first development Electro Circuits attempted to secure a license under the Sperry patents in return for its agreement to purchase from Sperry unpatented sub-assemblies of the latter's patented devices. Sperry rejected this proposal. When Electro Circuits was ready to market its Wide Band Converter, Richards, the president of that company, had a conference with the officials of Sperry with a view of securing an agreement that would permit Electro Circuits to manufacture and sell its Wide Band Converter without being sued for infringement. . . . It was agreed between the parties, however, that Sperry would forebear instituting suit for infringement provided Electro Circuits sold its Wide Band Converter for use only in conjunction with Sperry's Reflectoscopes. The Wide Band Converter was designed so that it could be 'plugged in' to a Reflectoscope. Under this arrangement of joint use, only the display portion of the cathode ray oscilloscope of Sperry's in-

(Footnote continued on following page)

The Court of Appeals then discussed the facts and stated its own conclusions on the facts, saying (pp. 926-927):

> "This agreement does not provide for the sale of any article covered by the patents in suit. Obviously then it does not provide that some other article either patented or unpatented must be purchased in order to get an article covered by the patents in suit. The agreement permits Electro Circuits to market its Wide Band Converter without being subjected to a suit for infringement. At this point, the parties to the agreement assumed that the Wide Band Converter infringed the Sperry patents. This being so, Sperry could have prevented the sale of the converters or could have sued the users for infringement. Sperry was legally entitled to be free of competition in the use of its patents. Under the agreement, no trade was unlawfully restrained. An article was thus introduced into commerce that might otherwise have been withheld from the markets.
>
> "There is no tying agreement here as that term has been defined by the courts.

• • • •

(Footnote continued from preceding page)

strument was used. All other functions of the dual apparatus were performed by the Wide Band Converter. The agreement remained in effect for about 9 months, during which time Electro Circuits sold 8 Wide Band Converters to owners of Reflectoscopes and one Wide Band Converter to a customer who agreed to its use with a Reflectoscope to be purchased from Sperry. In March 1953 Farwell, president of Sperry, learned through an advertisement in a trade journal that Electro Circuits was making a B Scan display in connection with its Wide Band Converter. Farwell considered this a breach by Electro Circuits of its agreement and an infringement of Sperry's patents, and notified Electro Circuits to this effect. Thereafter officials of Electro Circuits went to New York and there conferred with representatives of Sperry.

At this time Electro Circuits was negotiating with the Magnaflux Company with a view of engaging the latter to act as its distributor. In making the trip to New York Richards

(Footnote continued on following page)

> **"We conclude that the trial judge was not in error in finding that the agreement in question was neither a violation of the anti-trust laws nor a misuse of the patents in suit."**

Obviously, petitioners are wrong in saying the Court of Appeals did not consider the surrounding facts.

Second Question

In their discussion of the Second Question, petitioners would create the impression that the Court below created

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(Footnote continued from preceding page)

stopped in Chicago and informed Magnaflux of Sperry's notice of infringement. On May 6, 1953 Richards held a series of conferences with Sperry in New York, at which time many proposals were made and rejected. It was finally agreed, however, that Electro Circuits might continue selling its Wide Band Converter and B Scan for use with the Reflectoscopes for a period of six months, after which time Electro Circuits would convert its equipment to the F-M system of ultrasonic inspection, on which it held a patent. Before returning to California, Richards again stopped at Chicago and saw the officers of the Magnaflux Company. On this occasion he learned that Magnaflux had received an opinion from a firm of patent lawyers that the Sperry patents probably were invalid. When he arrived back in California, Richards requested a firm of patent attorneys in San Francisco to submit opinions on two questions: (1) whether its F-M system infringed the Sperry patents, and (2) whether the Sperry patents were invalid. The opinions received were to the effect that the F-M system did not infringe and that the Sperry patents probably were invalid. Thereafter, at the end of the six months period, Electro Circuits did not convert its equipment to the F-M system—instead it incorporated a cathode ray oscilloscope in its wide band converter and called the new self-operating unit an Immerscope. In only one instance did Sperry sell a Reflectoscope that was to be used with the Wide Band Converter. In that case Sperry imposed no condition upon the use of its instrument but merely agreed that in addition to its use in the usual manner the purchaser might also use the Reflectoscope in conjunction with the Wide Band Converter. The other eight sales of Wide Band Converters were made by Electro Circuits to owners of Reflectoscopes and Sperry merely consented to the use of its invention in the manner described above. At no time in connection with any of the transactions did Sperry attempt to enlarge its lawful monopoly under its patents. * * *"

new law by an unsound application of Section 112 and by flying in the face of applicable prior decisions of this Court in determining infringement of patent No. 1. But, as we have previously pointed out, the opinion of the Court makes it clear that this is not so. In the first place, the Court explicitly noted the limitation of Section 112 and held that the claims in suit were within the limitation saying (p. 916):

> "We consider that the elements of the combination constituting the claimed invention are sufficiently defined and described in the specifications to support the claims in suit as stated."

In the second place, in determining the principles to be applied in determining infringement, the Court below cited and relied on seven decisions of this Court as well as decisions of lower courts and did not refer at all to Section 112. It said (p. 924):

> "With these principles in mind, we proceed to analyze the Immerscope with reference to infringement of the Firestone patents."

After two pages of analysis of the facts* concerning petitioners' Immerscope apparatus, it concluded (p. 925):

> "Upon a careful analysis of the elements and functioning of the Immerscope and Firestone patent No. 1, we conclude that the Immerscope operates in substantially the same way and uses substantially the same means as that which forms the substance of the Firestone invention.
>
> Accordingly, we sustain the District Court's finding that claims numbered 2, 3, 4, 10 and 11 of patent No. 1 are infringed."

---

* Also, we direct attention to the extended analysis of the invention which appears at pages 914-915 of the opinion.

Petitioners mix into their discussion of the alleged effect of Section 112 on patent No. 1 repeated assertions concerning patent No. 3. These are wholly irrelevant and confusing. Petitioners do not contend that Section 112 has any bearing on patent No. 3 whatsoever or that the Court's decision that petitioners infringed patent No. 3 was based in any way on Section 112. The Court held (p. 925):

> "There seems to be little question that the Immerscope infringes all of the claims of patent No. 3. The defendants virtually admit this in their argument on the validity of the claims of patent No. 3 (Defendants' brief p. 40). We are in accord with the findings and conclusions of the trial judge on this question. The claims of patent No. 3 are infringed by the Immerscope."

Petitioners petitioned the court below for rehearing on the question of infringement of patent No. 3 but did not even mention Section 112. The Court in denying the petition said (Petitioners' Appendix, p. 41):

> "The questions of validity and infringement of this patent having been fully considered and discussed in the opinion of the trial judge, 171 F. Supp. 901, 920, 923, and in the opinion of this Court, *supra*, the petition for rehearing of the defendants-appellants is hereby denied."

CONCLUSION

It is submitted that there is no reason or basis for issuance of a writ of certiorari and that the petition should be denied.

Respectfully submitted,

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In the Supreme Court of the United States

OCTOBER TERM, 1961.

No. 316.

ALUMINUM COMPANY OF AMERICA,
ELECTRO-CIRCUITS, INC., and
CURTISS-WRIGHT CORPORATION,

Petitioners,

vs.

SPERRY PRODUCTS, INC.,
FLOYD A. FIRESTONE, and
UNITED AIRCRAFT CORPORATION,

Respondents.

BRIEF FOR RESPONDENT, FLOYD A. FIRESTONE, IN OPPOSITION TO PETITION.

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Respondents.

BRIEF FOR RESPONDENT, FLOYD A. FIRESTONE, IN OPPOSITION TO PETITION.

COUNTERSTATEMENT OF QUESTIONS PRESENTED FOR REVIEW.

Counter Question 1 (a) and (b).

a. Is a proper tying-in question presented for review where a licensee is given a license to make an otherwise infringing attachment for a device, but the licensor reserves the right to make the main portion covered by the patent and where there is no tying-in of unpatented articles?

b. Where two lower Courts went into the "surrounding circumstances" at great length and found that:

(1) The Licensor demonstrated good faith and public concern by turning down the licensee's proposal to tie-in unpatented products;

(2) There was no domination of an industry; and

(3) The Licensor made a good faith effort to put the device on the market in all fields where it would be of use —either by manufacturing it itself, or granting licenses thereunder; then:

Do the "surrounding circumstances" indicate a need for certiorari to right a wrong, or do they show instead an attempt by Respondent to do even more than the law requires in order that the benefits of the patent may be utilized to their fullest?

Counter Question 2(a).

Where an Appellate Court follows the express wording of a statute, and wherein the meaning of the statute has caused no confusion in the courts, should certiorari be granted to determine a question which was *obiter dictum* in the case at bar and which would not change the ruling in this case whether this Court held for or against Petitioner's position as to the *obiter dictum*?

Counter Question 2(b).

May review be sought to construe a statute section which has nothing to do with the question propounded, or to determine whether there was error in the Appellate Court's reliance on a case which does not stand for the proposition asserted by Petitioner as being erroneous?

COUNTERSTATEMENT OF THE FACTS.

Re: The Patents In Suit.

Petitioner's main contention is that the patents are anticipated by the prior art. This contention is contrary to the express findings of the District Court (784a-794a, 801a-802a) and Appellate Court. (Appendix hereto 8b-11b and 16b-19b.) As will be more apparent in discussing Petitioner's Questions, Petitioner's real intention is to reargue these findings of anticipation rather than to propound questions of law raised by this case or of interest to the bench and bar.

Re: The Relationship between Electro-Circuits and Sperry.

Petitioner's statements of "fact" are quite different from the relationship of the parties as found by the District (812a-819a; 825a-829a) and Appellate Courts. (Appendix hereto 28b-30b.)

The facts show *inter alia* that it was Electro-Circuits which proposed a tying-in agreement and that the proposition was rejected. (826a.) The facts show that the device made by Electro-Circuits was an infringing auxilliary attachment adapted to be "plugged into" the Sperry device. (826a.) The facts show that there was no domination of the industry. (814a, 819a.) Sperry did much more than a patent owner is required by law to do. Sperry, in good faith, did its utmost to put a device on the market in all the areas in which it would be of use.

ARGUMENT.

Reasons For Disallowance Of The Writ.

Respondent respectfully submits that the Petition does not raise questions supported by the case. Petitioner's First Question attempts to give the impression that there was a tie-in of unpatented articles, which there was not. Petitioner also singles out certain "surrounding circumstances" taken out of context and conveniently omits the "surrounding circumstances" which were found by the District and Appellate Courts and which indicate Respondent's attempt to do even more than the law requires.

Petitioner's second question, part (a), asks this Court to consider an *obiter dictum* statement of the Appellate Court and the application of a statute which has not caused trouble in the Courts since its enactment.

Petitioner's second question, part (b), asks this Court to construe a statutory section which has nothing to do with the question propounded, and to exercise supervisory authority over the Appellate Court for alleged error in relying on a case which does not stand for the point of law which Petitioner says it does, and which was not relied on by the Appellate Court for the reason asserted by Petitioner. Petitioner's Questions are not supported by the case. Certiorari should be denied.

As to the First Question.

Petitioner's entire first question is based upon an alleged tying-in provision in a license agreement wherein purchasers were allegedly required to purchase an unpatented product. Let there be no doubt that such a tying-in provision did *not* exist.

The actual agreement, which is purportedly the cause of the entire First Question, is only casually explained

in only one sentence of one paragraph beginning on page 16 of the Argument—almost as though Petitioner were trying to gloss over lightly the actual terms thereof.

The facts of the relationship between the companies and the terms of the agreement are set forth in the opinion of the District Court. The following facts are significant:

1. Sperry was approached by Electro-Circuits and was asked to grant a license including an agreement to purchase unpatented sub-assemblies. This offer of Electro-Circuits, which would have been illegal, was *refused* by Sperry. (826a.)

2. Sperry did agree to license Electro-Circuits to make and sell its Wide Band Converter but only in conjunction with the patented Reflectoscope. Note that the infringement question was so obvious that Electro-Circuits approached Sperry. (773a.) Sperry could have elected not to license at all.

The invention of Dr. Firestone which is summarized by the District Court (772a) has three basic components—a particular pulse generating apparatus, a pulse-echo receiving mechanism, and a synchronizing and flaw registering apparatus. The Wide Band Converter performed the generating and receiving functions. If "plugged into" (826a) a Reflectoscope it permitted operation at higher frequencies (773a). It was, in essence, an attachment which, if made and sold, would have been an infringement. Sperry consented to the manufacture of the attachment by Electro-Circuits, but only for attachment to patented Reflectoscopes. As stated by the Appellate Court, (Appendix hereto 29b):

> "At this point, the parties to the agreement assumed that the Wide Band Converter infringed the Sperry patents. This being so, Sperry could have prevented the sale of the converters or could have

> sued the users for infringement. Sperry was legally entitled to be free of competition in the use of its patents. Under the agreement, no trade was unlawfully restrained. An article was thus introduced into commerce that might otherwise have been withheld from the markets."

Note that the Reflectoscope was "80% useless" only temporarily when the attachment for higher frequency was "plugged in"—in much the same way that a large portion of a T-V set is temporarily "useless" when a phonograph turntable is "plugged in" to play through the speaker system of the T-V set. The important factor is that there was no tying-in. The entire arrangement was covered by at least one patent. There was no tying-in of devices or articles not covered by the patents, no price-fixing, or any other harm referred to in the cases cited by Petitioner. It is no wonder that Petitioner tried to gloss over the actual terms of the agreement, and to overlook the fact that Petitioner had proposed an agreement whereby Sperry was to sell unpatented assemblies and which was turned down by Sperry (828a). Petitioner's First Question, being premised on an agreement that, as a matter of fact, does not involve a tie-in of an unpatented device, should be denied certiorari.

Petitioner makes much of the "surrounding circumstances" of the agreement. Let us look at *all* the surrounding circumstances. Petitioner neglects to note the following:

(1) The agreement in question lasted only nine months during which time eight units were sold as attachments to customers *who already owned patented Sperry Reflectoscopes* (826a) and only one to a customer who purchased a new patented Sperry Reflectoscope. With respect to the single sale, the Trial Court noted that

> "In that case Sperry imposed no condition upon the use of its instrument but merely agreed that in addition to its use in the usual manner the purchaser might also use the Reflectoscope in conjunction with the Wide Band Converter."

(2) Sperry exercised no discrimination or holding back. As stated by the Appellate Court (Appendix hereto 30b):

> "The evidence discloses that the Reflectoscope which is the subject of the patents in suit was sold outright *without restriction*. Approximately eleven hundred were so sold." (Emphasis added.)

(3) The only area where Sperry would not license *competitors* is in the commercial testing business. About 150 companies are engaged therein and Sperry does only 1% of the business (814a, 819a). There is clearly no domination or restraint of trade.

(4) Moreover, when Electro-Circuits breached the agreement, Sperry permitted Electro-Circuits to sell its infringing devices until Electro-Circuits could convert over to an F-M system on which Electro-Circuits held a patent and on which Electro-Circuits would operate completely free of infringement of the patents in suit with no tie-in of any kind (827a). Instead of converting to F-M, Electro-Circuits, after the six month period:

> "incorporated a cathode ray oscilloscope in its wide band converter and called the new self-operating unit an Immerscope." (827a.)

Note that Petitioner represented to the State of California in its prospectus, that the frequency modulation method was superior to the pulse-echo method and that the successful development of the frequency modulation method has been "conclusively established." (1216b.)

(5) Note that the District Court held (773a) that:

> "The wide band converter was used primarily for detecting flaws in parts by placing the parts to be inspected underwater."

Thus, if, as Petitioner maintains, its device was better adapted for testing aircraft forgings, Sperry licensed Petitioner to do so.

(6) However, contrary to Petitioner's assertion, Sperry did provide immersion testing equipment and did attempt to meet the need of the airframe manufacturers—both by its own efforts and by licensing Electro-Circuits to make a temporary conversion system to be "plugged in" until a more complete device could be developed. Petitioner did not develop "immersed testing." The Sperry Reflectoscope was used for immersed testing before the Immerscope was ever made and even prior to the "wide-band converter" which was the predecessor of the Immerscope (Hitt, 481a, 447a, 449a-451a; Richards, 664a-665a). This early Reflectoscope when used for immersed testing had certain limitations, the principal one of which was that it did not have a high enough frequency range to detect flaws as small and as close to the surface as was desired. In 1951 when made aware of this desire on the part of the air frame manufacturers, Sperry modified its UR Reflectoscope by adding a delayed sweep and increasing the frequency (449a). In use it developed that this also had limitations among which were a lack of power and a need for even higher frequencies (Hitt, 455a, 456a). Sperry agreed with the representatives of Alcoa and the air frame manufacturers to design an equipment which would meet the variety of demands and requirements of different companies (Fink, 235b; Hood, 172b). The Sperry Reflectoscopes of the older UR series are today used for immersion testing by the Aluminum Company at low

frequencies (Hood, 167b). The problem did not reside in using the early model UR for immersed testing as Petitioner implies. The problem resided in providing higher frequencies in testing flaws closer to the surface, which was the particular requirement of the air frame companies (Manning, 286b, 287b). In the meantime, Electro-Circuits undertook to provide a wide-band converter to convert the existing Reflectoscopes so that the air frame manufacturers could have the high frequencies and other features which they particularly wanted (Hitt, 449a, 451a). Sperry granted Electro-Circuits a license so that the need could be met while Sperry perfected an entire unit. That license is the license in question.

(7) With respect to the production line, Petitioner's witness, Hitt, of Douglas Aircraft, testified that the Sperry instrument was not as good for production line testing "as we use production ultrasonic testing" (453a). In other words, they had a preference because of the particular way they do things. Hitt admitted that it is a "very fine instrument" but is complex and heavy (453a). In other words they preferred the lighter and simpler and less expensive construction. Petitioner is dealing with a preference not public safety.

According to the testimony of Petitioner's own witnesses on cross-examination the demand varied. William L. Fink, Chief of the Physical Metallurgy Division of the Alcoa Research Laboratories, stated as follows at page 235b:

> "You see, each customer had his ideas of what this instrument should do, so that the UW (Respondent's) instrument is largely to meet the demands or the requests of quite a number of customers."

Likewise, Petitioner's witness, John Smack, manager of Ultrasonic Sales for Curtiss-Wright Corporation (620a) stated (246b):

> "We like both instruments, and we use them where we feel they are best fitted. In other words, if the UW is too large for a certain installation, then we may go to the immerscope because it is a *smaller unit and weighs much less.*" (Emphasis added.)

The difference again is a difference of size and weight, not quality. Sperry's U. W. had more features than any one company would want. (Buckman 181b.)

(8) Respondent's patent was a pioneer invention (791a) having many applications and uses. Respondent's licensee, Sperry, attempted to apply it as rapidly as possible to all fields, either by direct manufacture or licensing; the public was not deprived of the use of the invention. Because the infringer adapted the device to perform just one particular and specialized use, rather than having an all purpose unit, the infringer is not entitled to say that Respondent acted improperly—particularly where the infringer was granted a license to fill the need in the interim period.

Summary As To The First Question.

The record shows that Petitioner's assertion of a tie-in of an unpatented product is unfounded. Petitioner itself sought an illegal agreement and was refused. Respondent, Sperry, sold its devices without restriction and attempted in good faith to market the device in all areas of demand even though under the law it did not need to do so. There is no misuse. Petitioner is merely trying to reargue its case. The petition based on Petitioner's First Question should be denied.

As To Petitioner's Second Question Part (2a).

Where an Appellate Court follows the express wording of a statute, and wherein the meaning of the statute has caused no confusion in the courts, should certiorari be granted to determine a question which was *obiter dictum* in the case at bar and which would not change the ruling in this case whether this Court held for or against Petitioner's position as to the *obiter dictum*?

Petitioner is asking this Court to determine whether Section 112 overrules the *Haliburton* case where the matter is immaterial to a decision of this case and has not caused any problems in the Courts since its enactment in 1952.

The Appellate Court herein followed the express wording of Section 112 of the Patent Act of 1952. Whether this section abolishes or merely modifies the *Haliburton** case is immaterial to the outcome of this case. To hold otherwise would be to hold that a prior case overrules a subsequent statute. Any discussion of a previous case construing a different statutory provision, while interesting, is nevertheless *obiter dictum*. If, as Petitioner asserts, the status of the *Haliburton* case is important, this is certainly not the case in which to raise it, as the Appellate Court followed the statute expressly. The reference to the *Haliburton* case was *obiter dictum*, and under the "case or controversy" provision of the Constitution would not place the issue squarely before the Court, or assist in determining the extent of modification. Whether this Court holds that the *Haliburton* case is abolished, merely modified, or distinguished, the outcome would be the same—a decision in favor of Respondent. Petitioner does not challenge the Constitutionality of Section 112, nor does Peti-

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* *Haliburton Oil Well Cementing Co. v. Walker*, 329 U. S. 1 (1946).

tioner assert that the Appellate Court did not follow the statute. The former grounds would be pointless and the latter is clearly contrary to the facts.

The claims in suit involved combination claims which included "means" clauses. Section 112 of the Patent Act provides that in a combination claim:

> "An element may be expressed as a means * * * for performing a specified function, without the recital of structure * * * in support thereof, and such claim shall be construed to cover the corresponding structure * * * described in the specification and equivalents thereof."

The Appellate Court looked to the claims in the light of the specification and held (Appendix hereto, 7b):

> "We consider that the elements of the combination constituting the claimed invention are sufficiently defined and described in the specifications to support the claims in suit as stated."

Petitioner's second grounds for review involved an alleged conflict among the courts which, in fact, does not exist.

In doing so Petitioner has pitted the First and Sixth Circuits and the Court of Customs and Patent Appeals against each other in a battle that does not exist. The question has not disturbed the Courts and the holdings of the Courts have been entirely consistent with the ruling of the Appellate Court in the case at bar.

The ruling of the Sixth Circuit in *General Motors Corp. v. Estate Stove Co.*, 201 F2d. 645 (6th Cir.—1953), rehearing 203 F2d. 912, is not in point. The Court did not, as Petitioner asserts, hold that "claims directed to a function were invalid." The Court held that the claims were invalid because they were "indefinite" in specifying heat-

ing capacities as being "greater" or "smaller." That is quite a difference. Indefiniteness is set forth in the first two paragraphs of Section 112. The Court in the *General Motors* case quoted those first two paragraphs in reaching its conclusion and rejected the relevancy of paragraph 3 of Section 112 which pertains to functional claims which was put forth by the Appellee therein. In the case at bar we are concerned with the third paragraph of Section 112. Note that the *General Motors* case does not cite the *Haliburton* case.

Nor is there conflict with rulings of the Court of Customs and Patent Appeals. In *Application of Piazze*, 230 F2d. 426 (CCPA—1956) and *Application of Mason*, 244 F2d. 733 (CCPA—1957) the question was whether claims were allowable wherein they *differed from the prior art* only in a statement of function. Note that neither Section 112 of the Patent Act nor the *Haliburton* case were at issue.

The Court in the *Piazze* case stated as follows at page 427:

> "It is well settled that claims drawn to structure must *distinguish from the prior art* in terms of structure rather than function * * * Accordingly, the question to be determined here is whether the structural feature recited in the claims are disclosed or suggested by the cited prior patents." (Emphasis added.)

This is an entirely separate question A claim is not patentable over the prior art by a functional statement any more than it would be if it provided an equivalent structure. We are concerned here, in Petitioner's Question 2(a) with whether means claims are valid where there is support therefor in the specification. Question 2(a) has nothing to do with prior art.

In the *Krodel* case, 223 F2d. 285 (CCPA—1955) the Court held the claims to be valid even though functional language was used therein. The *Krodel* Court reached this conclusion by looking to the specification to see if it supported the claims. The *Krodel* case followed the procedure of the statute as did the Appellate Court herein. In the *Krodel* case the Court used the words "functional" as synonymous with invalidity but in determining "functionality" it followed the statute, not the *Haliburton* case. In fact, the *Haliburton* case is not even mentioned.

Nor is the Sixth Circuit opinion below in conflict with the opinion of the Court of Appeals for the First Circuit in *Warren Company v. Nashua Gummed & Coated Paper Co.*, 205 F2d. 602 (1st Cir.—1953). In that case the Court, as did the Appellate Court herein, followed the guidance of paragraph 3 of Section 112 and looked to the specification to determine the validity of functional statements in the claims. The Court then affirmed the lower Court's holding of validity, stating at page 606 as follows:

> "* * * Reading the claims in the light of the specification, we think one skilled in the art could readily apprehend the precise nature of Perry's invention and the limits of its scope. This is all the law requires."

There is no conflict between the circuits, and the Courts have readily followed the statute.

With respect to the "facts" set forth at pages 24-26 of its Brief, Petitioner has set up a patchwork construction of unrelated and misleading elements in opposition to the clear findings of the Court. Not only is this patchwork erroneous but it is directed to an entirely different question from that propounded by Question 2(a).

Petitioner ignores the fact that the Appellate Court applied the test of Paragraph 3 of Section 112 by comparing the claims to the specification and found the claims to be supported by the specification. Instead Petitioner launches into an argument that the "functional" statements are invalid because they do not distinguish over the prior art. This is not the question asked by Question 2(a) and paraphrased in the bold type at the top of page 24 with respect to claims being "Invalid Because Directed To a Desired Result." This has nothing to do with the *Haliburton* case which Petitioner asserts is so important.

In passing, Respondent would like to point out that in addition to being irrelevant, Petitioner's statements are incorrect. The Preamble establishes the art with which the invention is concerned. The *elements* set forth the invention.

As stated by *Amdur's "Patent Office Rules and Practice"* (1959) at page 205:

> "The identifying preamble may be looked to, not as an element of the invention but only as the title or name of same, and the invention must be found in the combination of those of the elements actually entering into the device. The identifying preamble not being an element, it forms no basis of rejection on an alleged old combination."

Yet Petitioner puts the preamble forth as though it were an element. Petitioner states that the prior art was distinguished "only" because of the introductory clause. This statement is reckless. The Trial Court thoroughly discussed the prior art (785a-792a, 802a). Note in particular the detailed comparison, element for element, of the Sokolov reference (787a-789a). The Trial Court's findings were held to be proper by the Appellate Court (Appendix hereto page 11b).

The Smith reference referred to by Petitioner at Page 24 was compared to the elements *not* to the preamble by the Trial Court (790a) which concluded that:

> "* * * like other prior art cited by Defendants, Smith does not disclose the purpose, means and *mechanism* for accomplishing the end of the patent in suit." (Emphasis added.)

The reference to Dr. Firestone's statement in prosecution of the application is doubly improper. First, because the Claims 2 and 3 to which the argument was made were cancelled. They are not even part of the record herein. Secondly, the statement is taken out of context. The next sentence (923a) explains what Dr. Firestone meant by the statement. Dr. Firestone meant both the recognition that short wave trains can be produced to make it possible to inspect less than ten feet *and* a threefold method for doing the same. The threefold method is set forth earlier in the file wrapper (918a-922a) and incorporated by reference. The three-fold method relates to novel *elements* of the claims not just the preamble.

It is apparent that Petitioner is not really concerned with functional claims, as expressed Paragraph 3 of Section 112 of the Patent Act of 1952. What Petitioner is really seeking is that this Court reconsider the fact question of anticipation by the prior art.

Note the number of recurrence of the words "novel," "novelty" and "prior art" at Pages 24 and 25 of Petitioner's Brief. A claim is "functional" or not, in terms of its wording, as interpreted by the specification. If a claim is anticipated by the prior art it may lack novelty, but it is not therefore "functional."

Petitioner poses one question of law relating to an *obiter dictum* reference of the Appellate Court but then reargues instead a question of fact. Petitioner's Question 2(a) should be denied.

As to Petitioner's Question 2(b).

Question 2(b) asks whether Section 112 of the Patent Act has modified the rule that infringement does not exist where an alleged infringer follows the prior art. This is a surprising question as Section 112 has nothing to do with the relationship between the prior art and infringement. Is Petitioner merely using question 2(b) as a pretext to reconsider findings of fact as it did in question 2(a)?

Petitioner attempts to show a conflict among the courts in construing Section 112 on the question of infringement. This is indeed a novel position as none of the cases cited construe Section 112.

Petitioner asserts error and a conflict because the Appellate Court quoted from the *Comptograph Co. v. Mechanical Accountant Co.*, 145 F. 331, 338 (1st Cir.—1906). This is erroneous as the quotation from the *Comptograph* case has nothing to do with an infringer following the prior art instead of the patent. The meaning of the quotation is clear from the entire paragraph. The *Comptograph* Court states at page 337 as follows:

> "The defendant further contends that its disengaging levers were originally introduced into its machine for another purpose. We are strongly inclined to the opinion, however, that, whatever may have been the defendant's original purpose, the main purpose for which these levers are now employed is the same as the Felt levers, to prevent the error of 1 in additive substraction. But, assuming that the defendant's levers were originally inserted for another purpose, and in fact perform some other function, these circumstances, under the state of facts presented in this case, will not relieve the defendant from the charge of infringement. If the infringing device performs the same function as the patented device, it is immaterial that it also performs some other function. It is still none the less an equivalent of the patented

device, and an appropriation of the patented invention."

The *Comptograph* case has nothing to do with infringement where the prior art is followed. The question is merely a corollary to the principle cited by the Appellate Court (23a) immediately preceding its reference to the *Comptograph* case that

> "It is well established that an improver cannot appropriate the basic patent of another and that the improver without a license is an infringer and may be sued as such."

The District Court discussed the prior art at length with respect to the question of validity. The trial court then clearly compared the infringing device to the prior art and stated at page 804a:

> "As stated at the outset of this opinion, Defendant's principal defense against the charge of infringement is that the Immerscope follows the teachings of the prior art rather than the disclosures of the Firestone patents. In view of determinations here and above made on the issue of anticipation, no further comment is necessary to demonstrate the inadequacy of that defense."

The trial Court did compare but did not deem it necessary to repeat the similar arguments. Note, however, that the Court did go into detail at page 806a as follows:

> "Defendants argue that the Immerscope uses the echo system of depth sounding devices such as those shown by Stocks and Rust publication. They contend that any doubt as to the equivalence between a metal part and the mud and clay at the bottom of the ocean should be resolved favorably to the defendants by combining Stocks and Rust with the teachings of Sokolov. However, the only immersion testing taught by Sokolov is continuous testing which differs

> substantially from the methods of contact and the immersion testing taught by Firestone and used in the Immerscope * * *."

Note that at page 41 of its Appeal Brief Petitioner states:

> "Stocks and Rust teach the underwater inspection of underwater layers of clay by pulse echo equipment. This is immersion testing."

At page 28 of its Petition similar assertions are made including reference to Sokolov which was discussed by the District Court (806a). Yet Petitioner as a fact asserts at page 26 that it follows the prior art immersion testing method. It is clear that Petitioner is challenging the lower court's findings of fact, not law.

The question of comparison was put before the Appellate Court. Petitioner errs in implying at page 27 of its Brief that the Appellate Court based its holdings solely on an "admission," in a brief. Note, however, that the Appellate Court was affirming, not reversing, the lower Court's findings and as such was able to adopt the district Court's findings as long as they were not clearly erroneous. The Appellate Court was satisfied that Petitioner's device did not follow the prior art. As for the "admission," it is an unequivocal one. Petitioner stated at page 41 of its Appeal Brief that

> "Nevertheless, the claims of the No. 3 patent are so broad as to read literally on immersion testing."

Petitioner attempts to belittle the admission by stating at page 28 of its Brief:

> "We then went on to point out that the claims are completely anticipated by the Stocks and Rust * * *."

In other words, having admitted infringement they "went on" to challenge validity.

The Goetz reference is dismissed by the District Court at pages 802a and 803a.

Petitioner's Question 2(b) does not raise the question of whether Section 112 has changed the law that infringement does not exist where the prior art is followed. Petitioner is using the Statute as an apparent means to reconsider factual holdings with respect to anticipation.

As to Petitioner's Question 2(c).

Petitioner's Question 2(c) is completely without merit and without support in argument. No section is devoted to this question. Petitioner is asking the Court to consider a hypothetical question. Is the Court to consider the entire Patent Act and then give a commentary thereon? There is no case or controversy in this question.

CONCLUSION.

Petitioner has set up a series of straw-man questions. As an initial eye-catcher Petitioner tried to give the impression that there was a tie-in of an unpatented product (First Question) and harm to the public, contrary to the record. Petitioner then set up question 2(a) purportedly to construe an *obiter dictum* reference of the Appellate Court as to the academic question of the degree to which Section 112 modifies the *Haliburton* case, and used the question instead as a springboard to launch into a discussion of the prior art. Petitioner continued its discussion of the prior art in Question 2(b) which was purportedly to construe Section 112 of the Patent Act of 1952. Petitioner ignored the fact that Section 112 has nothing to do with prior art.

It is respectfully requested that the Petition be denied.

ALBERT R. TEARE,
Attorney for Respondent,
Floyd A. Firestone.

Of Counsel:

TEARE, FETZER & TEARE,
DONALD A. TEARE.

APPENDIX.

OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT.

(Decided November 22, 1960.)

Before: McALLISTER, Chief Judge, MILLER and CECIL, Circuit Judges.

CECIL, Circuit Judge. This is an appeal from the District Court of the Eastern Division of the Northern District of Ohio. It involves infringement and validity of patents and a claim for damages and restraining orders asserted by counterclaim, for alleged misuse of patents through acts, contracts, combinations, conspiracies and monopolies all as set forth in the pleadings. The questions presented will be taken up and discussed seriatim.

There are four patents in suit: Nos. 2,280,226, 2,398,-701, 2,467,301 and 2,592,134. For convenience, they are referred to as patent numbers 1, 2, 3 and 4, respectively. The dates of the applications for and the issuance of these patents are as follows:

	Application	*Issued*
No. 1	May 27, 1940	April 21, 1942
No. 2	June 29, 1942	April 16, 1946
No. 3	July 23, 1945	April 12, 1949
No. 4	June 28, 1945	April 8, 1952

The plaintiffs and appellees are the following: Floyd A. Firestone, the inventor of all four patents and the owner of the legal title to No. 1; Sperry Products, Inc., a New York corporation, the exclusive licensee under patents Nos. 1 and 2, and the owner of patents 3 and 4; and United Aircraft Corporation, a Delaware corporation, and the owner of patent No. 2. This latter party was brought into the action involuntarily.

Aluminum Company of America, a Pennsylvania corporation, hereinafter called "Alcoa" is one of the defendants. It has a place of business in Cleveland, Ohio, where it used the accused device known as the "Immerscope." Electro Circuits, Inc., a California corporation, is another defendant and is the manufacturer of the Immerscope. Having no place of business in the jurisdiction of the court, it became a party by voluntarily filing an answer and counterclaim. Curtiss-Wright Corporation, a Delaware corporation, became a defendant on its own motion for intervention under order of the court dated February 10, 1959. Subsequent to October 17, 1955, it had manufactured certain Immrscopes under license from Electro Circuits. It is financing this litigation due to the inability of Electro Circuits to do so. All of these defendants are appellants on this appeal.

The parties will be referred to as plaintiffs and defendants, as they were in the trial court.

We will take up first the question of the validity of patent No. 1. (px 1, 849a.)

The claimed invention involves the principles of electronics and consists of the following elements or component parts: A device consisting of pulse oscillator, high frequency oscillator and modulator, to generate voltage trains, each containing one or more electric oscillations at supersonic frequency; a piezoelectric crystal to which the electric oscillations are applied and which crystal is acoustically coupled to the workpiece to be inspected via a medium (a film of oil or wax) having good conductive properties for ultrasonic vibrations; an amplifier, electrically connected to the crystal and capable of amplifying the weak electric oscillations produced in the crystal, by echo waves reflected from discontinuities within the workpiece; a linear sweep circuit synchronized with the genera-

tion of the voltage trains applied to the crystal and a cathode ray tube whose beam is deflected by the linear sweep.

These components are all defined in the specifications of the patent.

The function of this apparatus as disclosed by the patent is for the inspection, exploration, and measurement of a solid part by means of supersonic vibration waves.

The operation of the apparatus consisting of these components may be explained in non-technical language as follows: An electric current is introduced into the pulse oscillator which causes it to emit rhythmic pulsations of current. Simultaneously an electric current is transmitted to a high frequency oscillator which is converted into a continuous high frequency current.

The output of these two components is conducted to the modulator which serves as an electronic valve. The rhythmic pulsations from the pulse oscillator open the valve for the duration of each pulse. While open, the high frequency current passes through to the sending crystal. From the modulator then comes a rhythmic series of high frequency pulses, referred to as wave trains, which are transmitted to the sending crystal, causing it to produce mechanical vibrations at the same frequency as the current sent to it.

The high frequency mechanical vibrations or sound waves from the vibrating crystal are transmitted through a medium of oil or wax on the crystal into the solid part or workpiece being inspected.

When the sound waves strike a flaw or the end of the workpiece, referred to as a discontinuity, they are reflected as an echo back through the workpiece to the point at or near which they entered. This echo is picked up by the receiving crystal, which may be the same one as the send-

ing crystal or a different one, and the vibrations from the echo cause the receiving crystal to generate a small electric current. The current flowing from the receiving crystal is then increased in strength by an amplifier and conducted to a cathode ray oscilloscope, which is synchronized with the pulse of the oscillator, through a linear-sweep circuit.

When an electrical wave train is sent to the sending crystal, the linear-sweep circuit starts a spot of light moving horizontally across the fluorescent screen of the cathode ray tube at a constant speed.

The initial sound wave train deflects the spot. This deflection is referred to as a "pip." The spot then continues along its original path at the same speed, until the amplified current from the receiving crystal again deflects it, indicating that an echo has returned from a discontinuity in the workpiece. If the discontinuity is a flaw, the pip will occur closer to the original pip on the oscilloscope screen than that caused by a reflection from the end of the workpiece. The distance between the deflections created by the original pulse and the echo indicate the distance the sound waves have traveled, because this distance is correlated to the time it takes the sound waves to go out from the sending crystal and be reflected back to the receiving crystal.

The same process occurs when the discontinuity is the end of the workpiece, but this deflection will be farther from the original pip due to the increased time of travel.

Thus a graphic illustration of the initial sound waves, those reflected from the opposite end of the workpiece and those reflected from any intervening flaws, is made to appear on the oscilloscope screen. The whole process takes place with great rapidity, perhaps 100 times per second, and because of persistence of vision, the light spot on the

oscilloscope screen appears as a stationary, continuous line.

Two basic questions challenging the validity of patent No. 1, which were argued by counsel for the defendants, in the trial court and determined by the trial judge, are here presented for review. These questions are 1, Floyd A. Firestone, the inventor, made a misrepresentation to the patent office in securing the allowance of the patent and 2, the claims in suit 2, 3, 4, 10 and 11 are lacking in invention over prior art and were anticipated by such prior art.

The defendants now raise, for the first time, questions concerning the sufficiency with which the structure or combination is defined in the claims in suit. This Court is not bound to consider such questions. "It is the usual rule that we will not give consideration to issues not raised below." *Doll v. Glenn,* 231 F. 2d 186, 190, C. A. 6; *Cold Metal Process Co. et al. v. McLouth Steel Corporation,* 170 F. 2d 369, 380, C. A. 6; *Helvering v. Wood,* 309 U. S. 344, 349.

In *Hormel v. Helvering,* 312 U. S. 552, 558, the court said: "These decisions and others like them, while recognizing the desirability and existence of a general practice under which appellate courts confine themselves to the issues raised below, nevertheless do not lost sight of the fact that such appellate practice should not be applied where the obvious result would be a plain miscarriage of justice."

No such result would obtain here. The validity of patent No. 1 can be determined by a consideration of the two basic questions mentioned above.

Further, we are of the opinion that the claims in suit, so far as sufficiency of statement is concerned, meet the requirements of the statute. Section 112 of the patent act, which became effective January 1, 1953, provides, in part,

"An element in a claim for combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

It was further provided that the Act should apply to unexpired patents granted before the effective date of the Act.

This statute is in a sense a codification of an existing practice, but, as stated in the commentary on the Act, "It is unquestionable that some measure of greater liberality in the use of functional expressions in combination claims is authorized than had been permitted by some court decisions, and that decisions such as that in *Halliburton Oil Well Cementing Co. v. Walker,* 67 S. Ct. 6, 329 U. S. 1, 91 L. Ed. 3 (1946) are modified or rendered obsolete, but the exact limits of the enlargement remain to be determined." p. 25 Title 35 U. S. C. A., Patents, Sections 1 to 110.

We consider that the elements of the combination constituting the claimed invention are sufficiently defined and described in the specifications to support the claims in suit as stated.

One of the claims of invalidity is based on a charge that Mr. Firestone, the patentor, made misrepresentations of fact to the patent office, which induced the allowance of the patent. Mr. Firestone stated in one of his responses to the patent office, after a rejection, that his device would measure distances as small as 1/16 inch. The defendants say that he purposely withheld the fact that he had been unable to measure a distance of 10 inches three months before the application was filed.

This defense was not made in the answers filed by the defendants. It was asserted after the trial judge, while

studying the case, called attention of the parties by letter to certain testimony which was not discussed in their briefs.

The trial judge ruled against the defendants on this issue. It is claimed by the defendants that in arriving at this conclusion the judge relied on an entry in a notebook of Mr. Firestone, which was not properly admissible. (px 54,883a.) The page in question of the notebook had been admitted for another entry on another point.

This was a notebook which Mr. Firestone began using about August 1940. It was in his handwriting and contained entries of his work dated currently with the time of the entry. It was introduced for the entry dated January 10. 1941. This page also carried an entry dated November 2, 1940. It was this entry to which the trial judge made reference and which is objected to by the defense. The Court held that there was sufficient proof to allow its admission for the 1941 entry. If it were properly admitted for the one entry we see no reason why it cannot be considered for another similar entry of a different date. We think this exhibit was properly introduced under Section 1732, Title 28 U. S. C.

In *National Latex Products Company v. The Sun Rubber Co.*, 274 F. 2d 224, C. A. 6, cert. denied 362 U. S. 989, reports of the inventor were in evidence but there is no discussion of their admissibility. In *Erie R. Co. v. Lade*, 209 F. 2d 948, 951, C. A. 6, the Court said: "Rule 43(a), Federal Rules of Civil Procedure, 28 U. S. C., gives the court much latitude in determining admissibility of evidence and doubts must be resolved in favor of admissibility."

After reviewing all of the evidence on the subject of misrepresentation, we conclude that the facts as found by the trial judge are not clearly erroneous. The facts amply

support his conclusions: "I hold, therefore, that the representation of Dr. Firestone as to the 1/16 inch measurement was not fraudulently made and that under the circumstances such representation was not a material departure from the true measuring capability of patent No. 1." (171 F. Supp. 901, 908.) And at p. 910, 171 F. Supp.: "A fair analysis of the record leads to the conclusion that defendants have failed to sustain their claims of misrepresentation by that degree of clear and satisfactory proof required by law. I find that the presumption of the validity of patent No. 2,280,226 has not been impaired by misrepresentations to the patent office."

The statute gives a patent a presumption of validity. (Section 282 of Title 35 U. S. C.) This presumption is weakened if there is applicable prior art not considered by the patent office. *France Mfg. Co. v. Jefferson Electric Co.*, 106 F. 2d 605, C. A. 6; *Wolverine Fabricating and Mfg. Co., Inc. v. Detroit Gasket and Mfg. Co.*, 148 F. 2d 399, C. A. 6; *Modern Products Supply Co. v. Drachenberg*, 152 F. 2d 203, C. A. 6; *Cold Metal Process Company v. Republic Steel Corp.*, 233 F. 2d 828, C. A. 6; *Gibson-Stewart Company, Inc. v. Wm. Bros. Boiler and Manufacturing Company*, 264 F. 2d 776, C. A. 6; *Murray Company of Texas, Inc. v. Continental Gin Company*, 264 F. 2d 65, C. A. 5.

Patent No. 1 now before us, if valid, must rest on the principle that it is a combination of old elements which accomplish a new and useful result. It is elementary that the elements requisite to the validity of a patent are novelty, utility and invention.

Judge McAllister, speaking for the Court in *Allied Wheel Products v. Rude*, 206 F. 2d 752, 760, C. A. 6, said: "Anticipation belongs in the field of novelty. To anticipate an invention is to negative novelty; but even though a patent is not anticipated, and is concededly novel, it may

lack invention. In order to anticipate an invention, it is necessary that all of the elements of the invention or their equivalents be found in one single description or structure, where they do substantially the same work in substantially the same way."

In *Ohmer Fare Register Co. v. Ohmer,* 238 F. 182, 186, C. A. 6, Judge Knappen, speaking for the Court, said: "We are cited to no reference in the prior art fully anticipating the patent in suit. But we are considering the scope of invention, not anticipation; and in such inquiry the question is one of fact, taking into account the entire prior art, whether the advance made in the given case amounts to invention or only mechanical skill. . . . All elements of the prior art have a bearing upon the question of invention; it being unnecessary to a finding of lack of invention that every element be found in one embodiment."

"A reference, in order to be effective to disprove the novelty of an alleged invention, must relate to the same art as the questioned invention or to an analogous or closely related art." *Allied Wheel Products v. Rude,* 206 F. 2d 752, 755, C. A. 6. "With regard to analogous art, it is the rule that, though an inventor is conclusively presumed to know the prior art in his own and clearly allied lines of endeavor, he is not bound by what has been done in remote or non-analogous arts." *Allied Wheel Products v. Rude,* supra, 755. See also: *Ottinger v. Ferro Stamping & Mfg. Co.,* 59 F. 2d 640, C. A. 6; *Alemite Mfg. Corp. v. Rogers Products Co., Inc.,* 42 F. 2d 648, C. A. 3.

In *A. J. Deer Co., Inc. v. United States Slicing Machine Co.,* 21 F. 2d 812, 813, C. A. 7, the court said: "We are of opinion that whether arts or uses are analogous depends upon the similarity of their elements and purposes. If the elements and purposes in one art are related and similar to those in another art, and because and by reason

of that relation and similarity make an appeal to the mind of a person having mechanical skill and knowledge of the purposes of the other art, then we are of the opinion that such arts must be said to be analogous, and, if the converse is true, they are non-analogous arts." See also *Allied Wheel Products v. Rude*, supra; *Copeman Laboratories Co. v. General Plastics Corp.*, 149 F. 2d 962, C. A. 7; *B and M Corporation v. Koolvent Aluminum Awning Corporation of Indiana*, 257 F. 2d 264, C. A. 7. Another test is stated in *General Metals Powder Co. v. S. K. Wellman Co.*, 157 F. 2d 505, 510, C. A. 6: "A reasonable test is, whether the art from which the citations against the patent were drawn, was so remote that students of the questioned art would not naturally have looked there for help."

Findings of fact of the trial court in a patent case cannot be set aside unless clearly erroneous. Rule 52, F. R. C. P.; *General Metals Powder Co. v. S. K. Wellman Co.*, supra; *Gibson-Stewart Company, Inc. v. Wm. Bros Boiler and Manufacturing Company*, supra; *Cold Metal Process Company v. Republic Steel Corp.*, supra.

With these principles in mind we now turn to the references to see if from the combined disclosures of all of them a person skilled in the art might readily have designed the device alleged by the plaintiffs to constitute invention.

Mr. Fishleigh called as an expert by the defendants made a comparison of the non-cited references with the patent in suit. We are unable to find from his testimony or any testimony in the record that one skilled in analogous art could have designed the device which is the subject of patent No. 1 from the combined disclosures of all the prior art to which reference is made. We find, therefore, that the patent is not invalid for lack of invention.

This view is strengthened by a letter (px 61, 899a) from Dr. W. D. Coolidge to Dr. Firestone, dated February 10, 1943. Dr. Coolidge was consultant in x-ray matters for General Electric Company and formerly a Vice-president and Director of Research of that company. He said, in part: "Stimulated by a Russian publication in this field several years ago, we had a try at this method but without getting results of practical value."

The invention of this patent is not anticipated by any of the prior art references, either those cited in the file wrapper or those not cited. Not one of these references contains all of the elements of the invention or its equivalents. *Allied Wheel Products v. Rude*, supra.

The trial judge found patent No. 1 valid (171 F. Supp. 901, 910-914) and our findings support that conclusion. His findings are certainly not clearly erroneous.

The defendants challenge the validity of claims numbered 7, 16, 19, 20, 25, 26, 29 and 32 of patent No. 2. Claim No. 7 was held invalid by the trial judge and is the subject of appeal in case number 13891.

Claims numbered 16, 25 and 29 involve the use of a heterodyne amplifier. It is charged that this amplifier is old and lacks invention over patent No. 1 and that it is anticipated by prior patents, Harrison No. 2,433,361 (dx K-12, 1069a) and Wiseman No. 2,491,540 (dx K-15, 1105a).

It is claimed that crystal damping which is described in claims 19 and 32 is old in the art and anticipated by the Sokolov 1935 Publication (dx K-36, 1199a), Round patent No. 1,732,029 (dx K-5, 1031a), Sawyer patent No. 2,105,010 (dx E-14, 969a) and British patent No. 473,636 (dx E-29, 987a).

Claims 20 and 26 are directed to the operation of the heterodyne amplifier and the damped crystal in combina-

tion. It is claimed that there is no new coaction between the crystal and the amplifier, that both elements are old and that the claims are anticipated by prior art as shown in exhibits JJ and KK.

It is known that crystal damping was in use before Dr. Firestone's adaptation of it in patent No. 2 (Fishleigh 325a) and he concedes that the heterodyne amplifier was old in the art before he used it in this patent. The gist of Dr. Firestone's alleged invention in patent No. 2, as evidenced by the claims in suit, can be simply stated in his own language:

"I might say that heterodyne amplifiers were used before my invention both having frequencies lower than the signal frequency and those having frequencies higher than the signal frequency, but no one recognized this property of the heterodyne amplifier that it would recover its sensitivity more quickly after receiving a shock. *So I have taught that if one combines a heterodyne amplifier with a damped crystal*, damped in the particular manner that I have shown, *one can find flaws closer to the surface than by omitting such elements.*" (Emphasis added.) (104a), and

At pages 546 and 547a: "I concede right off that there have been used before my invention heterodyne amplifiers having intermediate frequencies higher than the signal frequency. But they were always used for announced purposes which were different than my purpose, and none of them taught what I discovered, that a heterodyne amplifier with such elevated intermediate frequency will recover its sensitivity after the initial shock more rapidly than will a straight amplifier, and Wiseman is one example of such an amplifier. And if there has not been such teaching in the past literature, one does not know enough to choose such an amplifier in the design of his apparatus. I was the

first to announce that such a heterodyne amplifier will recover its sensitivity more rapidly than a straight amplifier."

* * * * *

"*The Claim 26 is based on Claim 25 and combines that particular kind of a heterodyne amplifier along with means for damping the free vibrations of said crystal.* So you can fail to find a flaw that is close to the surface either because the amplifier you used did not recover fast enough or because the crystal was not adequately damp, *and the combination of those two enables you to find flaws which would otherwise be undetectable.*" (Emphasis added.)

The trial judge found that patent No. 2 related to improvements of patent No. 1 in the following respects: 1. Damping of the transducer (crystal) (claims 19 and 32); 2. Amplification by use of a heterodyne amplifier (claims 16, 25 and 29); and 3. "The use of improved means for the application of a train of voltage oscillations to the sending crystal." (Claim 7 which was held invalid.)

Patent No. 2 was in the Patent Office for nearly four years (June 1942-April 1946) before it was allowed. The claims in suit, except No. 32, were rejected one or two times, primarily because the combination had been exhausted by the first patent. Before the claims were finally allowed, Dr. Firestone made oral argument to the patent examiner. This argument is not a part of the file wrapper record and we, therefore, do not know the nature of it or what effect it had in overcoming the objections of the patent office.

The utility of patent No. 2 lies in the claim of Dr. Firestone that he had invented a means of detecting flaws in metal closer to the surface—within one-half inch.

To substantiate his claim to patent No. 1, after it had been rejected by the patent office, Dr. Firestone wrote, on

January 16, 1941, to that office: "I teach how to determine the thickness of a piece of steel when it is even as thin as 1/16 inch and when the reflected wave train arrives 0.2 micro-seconds after the initial pulse." (913a.) It appears that this was a vital matter in allowing this patent.

On January 15, 1941, in a letter to Edwin D. Eaton, (px 53, 879-880a) he wrote: * * * "Our equipment has been speeded up to such a point that we can now measure the thickness of the parallel plate which you sent us 1/16 in. thick in which case the successive reflections arrive back at the sending point ½ micro-seconds apart. * * * This improved operation and high speed has been made possible by two improvements: first, the damping of the quartz crystal by the addition of a heavy layer of wax to its back side, and second, the construction of a new amplifier having very short time constants in all parts of its circuit."

In the early part of this opinion we sustained the trial court's finding that there was no misrepresentation by Dr. Firestone in claiming that he could measure the thickness of metal down to 1/16 of an inch.

The trial judge discussed at great length prior patents and whether they anticipated the alleged invention of patent No. 2. The more important question is whether or not there was invention over patent No. 1. Counsel for plaintiffs claim that a new and unobvious result was achieved by the patent. Was the result unobvious or was it mere refinement such as any one skilled in the art might develop from the disclosures of the first patent?

In *Riddell, Inc. v. Goldsmith Sons Co.*, 92 F. 2d 353, 356, C. A. 6, the Court said: "The most that can be said for the claim is that, being skilled in an art continually undergoing refinement, he probably produced a better football shoe, but the improvement, if any, was in degree only and was not invention. * * * We think the claim represents

nothing more than the exercise of mechanical skill such as might have been expected and falls within the recond rule announced in *Hug v. Lakewood Eng. Co.*, 7 F. 2d 98, 99 (C. C. A. 6)."

The rule referred to is: "In the other class he finds most of the elements already in combination, and adds one or two already well known, singly or as groups, as common expedients in similar situations, or he substitutes for one or two of those elements devices already familiar to mechanics for analogous use; here must be a very meritorious case of benefit to the art in order to justify a patent."

In *Dunbar v. Myers,* 94 U. S. 187, 199, the Court citing *Smith v. Nichols,* 88 U. S. 112, said: "Meritorious inventors are entitled to protection; but it is settled law that a mere carrying forward of an original patented conception, involving only change of form, proportions, or degree, or the substitution of equivalents, doing the same thing as the original invention by substantially the same means, is not such an invention as will sustain a patent, even though the changes of the kind may produce better results."

"A new application of an old device may not be patented if the 'result claimed as new is the same in character as the original result' (*Blake v. San Francisco,* 113 U. S. 679, 683), even though the new result had not before been contemplated." *Cuno Corp. v. Automatic Devices Corp.,* 314 U. S. 84, 91 and cases cited.

Here the claims in suit involve a heterodyne amplifier which is old, damping of the crystal which was previously known and a combination of the two which resulted in detecting flaws closer to the surface than could be done with patent No. 1. The parts performed the same function and operated in the same way as they did in the original patent. The difference in result was one of degree. It was only a refinement such as one skilled in the art could have

achieved from the disclosures of the first patent. This is not invention.

The questions arise from Dr. Firestone's own testimony whether he even achieved any new result. He says the minimum dimension that could be measured by the first patent was 1/16 of an inch.. In detection of flaws he said: "Approximately a half an inch, or inch, perhaps." (186a.)

In the specifications of patent No. 2, page 3, first column, line 22, it is stated: "With my device the first reflection from a flaw one-half of an inch away may be observed, and successive reflections obtained in a plate one-sixteenth of an inch thick."

And on page 4, at line 11, second column, he says, "unusually good results are obtained in detecting flaws in parts of the order of magnitude of an inch in linear dimension, or in detecting flaws which lie within one-half of an inch of the sending point and from which the reflected wave train is received four micro-seconds after the initial wave train is sent out."

For the reasons herein stated, we find that claims 16, 19, 20, 25, 26, 29 and 32 are invalid for lack of invention over patent No. 1. Arriving at this conclusion it is not necessary to discuss anticipation by prior art.

There are three claims in patent No. 3 and the defendants challenge the validity of all of them on the ground that they are anticipated by prior art.

This is an improvement patent and the gist of it, as shown by the evidence and the specifications of the patent, is well stated by appellees in their brief, at p. 51, "the interposition between the means of transmitting supersonic wave trains (the crystal) and the workpiece of means capable of conducting the wave trains and having a dimension in the direction of wave train travel such that the

reflected wave trains are received after the transmission of the wave trains is completed. It is the interposition of delay means of these *dimensions* which secures the advantage of the patent, namely the ability to detect flaws immediately below the surface of the workpiece."

The trial judge discussed the alleged applicable prior art devices and found that none of them anticipated the patent in suit. (171 F. Supp. 901, 919.) Having in mind the rule of anticipation as we have heretofore stated it, we conclude that the trial judge was correct in his findings and that they are not clearly erroneous.

Here as in the case of patent No. 2 the pertinent question is one of invention over patent No. 1. In his opinion, the trial judge said: "The title of patent, (Supersonic Inspection for flaws lying near the surface of a part,) indicates in large part its purposes." All three of these patents have for their purpose, supersonic inspection of a workpiece to detect flaws through the use of wave trains. It is claimed by Dr. Firestone that No. 2 was capable of detecting flaws closer to the surface than was possible with No. 1 and that with No. 3 still better results in this respect were achieved.

The principal distinguishing feature between patents No. 3 and No. 1 is that a piece of metal of undisclosed size and shape, or a tank of undisclosed size containing a liquid of undisclosed content is placed between the crystal and the workpiece in patent No. 3. The same combination of elements as is used in patent No. 1 is used in this patent with the addition of the interposed member. It operates by the same fundamental principle. It produces a refinement of the same result. The question then arises as to whether or not this is invention. Would the adding of this element between the crystal and the workpiece be obvious to one ordinarily skilled in the art?

Looking backward it seems that this advance was a logical step and that it was so simple that it would have been obvious to any artisan. That was the patent examiner's first impression and he rejected the claims for that reason.

In an application for reconsideration, it was pointed out that seven instruments made in accordance with patent No. 1 were sold to large industrial companies; that they were sold subject to the limitation that testing cannot be performed closer than ½ inch to the surface of the object under test. Although these machines were operated by highly skilled research men, under the direction of skilled research directors, the problem had not been solved before Dr. Firestone's disclosure in patent No. 3. These men had long been aware of the problem and were eager for a solution, as detecting flaws closer to the surface was a matter of great importance.

Upon these representations the examiner allowed the three claims of the patent now in suit. There is some evidence by Mr. Fishleigh (p. 390a-391a) that the advance was an obvious one to one skilled in the art. There is no evidence contradictory to the representations in the application for reconsideration. "It is often difficult to determine whether a given improvement is a mere mechanical advance, or the result of the exercise of the creative faculty amounting to a meritorious invention. The fact that the invention seems simple after it is made does not determine the question; if this were the rule many of the most beneficial patents would be stricken down. It may be safely said that if those skilled in the mechanical arts are working in a given field and have failed after repeated efforts to discover a certain new and useful improvement, that he who first makes the discovery has done more than make the obvious improvement which would suggest itself to a

mechanic skilled in the art, and is entitled to protection as an inventor." *Expanded Metal Co. v. Bradford,* 214 U. S. 366, 381. See also: *Dow Chemical Co. v. Halliburton Oil Well Cementing Co.,* 324 U. S. 320, 330; *Loom Company v. Higgins,* 105 U. S. 580, 591; *Cold Metal Process Company v. Republic Steel Corp.,* 233 F. 2d 828, 837, C. A. 6, cert. denied, 352 U. S. 891, rehearing denied, 352 U. S. 955; and *G. H. Packwood Mfg. Co. v. St. Louis Janitor Supply Co.,* 115 F. 2d 958, 964, C. A. 8.

We find that there is not sufficient evidence of lack of invention to overcome the presumption of validity. Accordingly, we conclude that all claims of patent No. 3 are valid.

Patent No. 4 is a method patent. The purpose of claim 2, which is in suit, is for the inspection of the interior of a solid part and the detection of flaws therein. This claim describes a method adapted to the use and operation of the device covered by patent No. 1 and serves the useful purpose of being able to inspect a larger area of the workpiece without moving it, and of detecting flaws not otherwise ascertainable. There is no change in the fundamental principle of detecting flaws, as taught by patent No. 1. It is particularly adaptable for the inspection of a piece that is attached to a piece of machinery or other object.

The method of operation is pretty well described by the language of the claim: "The method of inspecting the interior of a solid part, which consists in transmitting a supersonic wave through a liquid which is in contact with the solid part, varying the angle of incidence of the wave for scanning a cross-sectional area of the solid part, and detecting waves emerging from the solid part into said liquid with an angle of emergence equal to the aforementioned angle of incidence." Varying the angle of incidence

is accomplished by a device which permits the crystal to be tilted or slanted.

The defendants charge that claim 2 is invalid because it is anticipated by Gotz, a prior art reference disclosed in a German publication "Akustishe Zeitschrift" (dx K-42, 1229a), and because it lacks invention.

The trial judge made findings by which he distinguished between the disclosures of Gotz and claim 2 of the patent now before us. He found that there was no anticipation. We agree with his conclusions and find that they are not clearly erroneous.

We might say further that the Gotz reference discloses that the author was transmitting sound waves *through* his workpiece at an angle and measuring the *intensity* of the received sound, rather than measuring the *time interval* between the sending of a wave train and the reception of a wave train reflected from a flaw or discontinuity. There is a basic difference. "A foreign patent is to be measured as anticipatory, not by what might have been made out of it, but by what is clearly and definitely expressed in it. An American patent is not anticipated by a prior foreign patent, unless the latter exhibits the invention in such full, clear, and exact terms as to enable any person skilled in the art to practice it without the necessity of making experiments." (*Carson v. American Smelting & Refining Co.*, 4 F. 2d 463, 465, C. A. 9, cert. denied, 269 U. S. 555. See also: *Borg-Warner Corp. v. Mall Tool Co.*, 220 F. 2d 803, C. A. 7.)

We find claim 2 of patent 4 is not anticipated by Gotz.

The patent office allowed the patent after first rejecting it because of lack of invention over patent No. 1. The method described by the claim in suit is novel and useful and we think is properly classed as invention. The trial

judge so found and we cannot say that such finding is clearly erroneous. Neither can we find sufficient evidence of lack of invention to overcome the presumption of validity.

We find the claim in question to be valid.

We have been considering, under the first six questions of defendants' brief, the validity of the claims in suit of patents numbered 1, 2, 3 and 4. Questions eight and nine still further challenge the validity of patent No. 1.

It is charged that the trial judge was strongly influenced to find patent No. 1 valid by reason of a letter dated February 10, 1943 (px 61, 899a), of W. D. Coolidge, then Vice-president and Director of Research of General Electric Company, to Dr. Firestone. We have previously referred to that letter and quoted the second paragraph to which the objection was directed. The defendants claim that this letter is hearsay and not admissible.

Dr. Coolidge was Director of Research of General Electric at the time he wrote the letter and had two or three hundred men under him. He was eighty-three years old at the time his deposition was taken in 1957 and had been retired since 1944. He had no present recollection of the subject discussed in the letter but he identified it as having been written by him and was certain that it stated a fact as of the time it was written. The letter is simply a memorandum recording a situation as of fourteen years before. The case was being tried to the court and the trial judge has considerable discretion as to what evidence shall be admitted. The Federal Rules and practice favor admission of evidence rather than exclusion if the proffered evidence has any probative value at all. We think the letter was admissible for what it appeared to be and that the question was one of weight rather than admissibility.

We do not find that the trial judge attached undue weight to the letter. He did not find that it was determinative of the issue of validity of patent No. 1, nor do we. It was cumulative and after finding validity it added strength to the conclusion. The fact that others had not achieved a result or made a discovery is only a circumstance in determining invention.

The claim that the trial judge based his finding of validity of patent No. 1 on commercial success is without foundation. We do not find anything in the opinion that would indicate he made such a finding, nor have counsel for the defendants referred any such findings to us. Only in close cases where there is some doubt about invention will commercial success tip the scales in favor of validity. If invention is lacking in a device no amount of commercial success will validate a patent. *Jungersen v. Ostby and Barton Co.*, 335 U. S. 560, 567; *Goodyear Co. v. Ray-O-Vac Co.*, 321 U. S. 275, 279; *Great Atlantic and Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U. S. 147, 153.

The trial judge did not find that invention was such a close question that it was necessary to rely on commercial success to sustain validity.

The defendants charge that the trial judge refused to recognize the fundamental rule that a device does not infringe where it follows the prior art rather than the patent disclosures. It is obvious that there can be no infringement in this case unless the accused device, the Immerscope, follows the teachings of the claims in suit of patents numbered 1, 3 and 4.

The trial judge painstakingly compared all of the alleged prior art references with the claims in suit of the patents herein involved. He found there was no anticipation. We sustain him in his findings as to patents 1, 3 and

4. As already stated we find patent No. 2 invalid for lack of invention.

The pertinent question here is whether the Immerscope follows the teachings of plaintiffs' patents. If its source is not in any one or more of these patents, it matters not where else it may be.

An infringement said the court in *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 569, quoting from *Burr v. Duryee*, 1 Wall. 531, 573, "is a copy of the thing described in the specification of the patentee, either without variation, or with such variations as are consistent with its being in substance the same thing. If the invention of the patentee be a machine, it will be infringed by a machine which incorporates in its structure and operation the substance of the invention; that is, by an arrangement of mechanism which performs the same service or produces the same effect in the same way, or substantially the same way . . . That two machines produce the same effect will not justify the assertion that they are substantially the same, or that the devices used are, therefore, mere equivalents for those of the other."

"Infringement of a combination patent occurs only through a combination comprising every one of its elements or a mechanical equivalent." *Guide v. Desperak*, 249 F. 2d 145, 147, C. A. 2. See also: *Rowell v. Lindsay*, 113 U. S. 97, 102; *Imhaeuser v. Burek*, 101 U. S. 647.

"It is well established that an improver cannot appropriate the basic patent of another and that the improver without a license is an infringer and may be sued as such." *Tempco Co. v. Apco Co.*, 275 U. S. 319, 328. See also: *Cochrane v. Deener*, 94 U. S. 780, 787; *Cantrell v. Wallick*, 117 U. S. 689, 694; *C and O Ry. Co. v. Kaltenbach et al.*, 95 F. 2d 801, 804, C. A. 4.

"If the infringing device performs the same function as the patented device, it is immaterial that it also performs some other function. It is still none the less an equivalent of the patented device, and an appropriation of the patented invention." *Comptograph Co. v. Mechanical Account Co.*, 145 F. 331, 338, C. A. 1. See also: *C and O. Ry. Co. v. Kaltenbach*, supra, and cases there cited.

As said by the trial judge, an accused device cannot escape infringement by merely adding features, if it otherwise adopts the basic features of the patent. *Holland v. American Steel Foundries*, 190 F. 2d 37, C. A. 7; cert. denied, 342 U. S. 859; *Aluminum Co. v. Thompson*, 122 F. 2d 796, C. A. 6; *Kelley-Koett v. McEuen*, 130 F. 2d 488, C. A. 6, cert. denied, 318 U. S. 762.

With these principles in mind, we proceed to analyze the Immerscope with reference to infringement of the Firestone patents.

The Immerscope consists of the following *essential* elements or component parts: A device consisting of a free running multivibrator, blocking oscillator and thyratron pulser, which serve to pulse the crystal; a piezoelectric quartz crystal to which the pulse is applied causing it to vibrate, and which is connected to the workpiece by immersing both in liquid, usually water, or putting a stream of water between them so that sound is conducted from crystal to workpiece; an amplifier-rectifier combination which serves to amplify small voltages and rectify individual oscillations received from the crystal, a linear sweep circuit synchronized with the multivibrator of the pulsing apparatus consisting of a bootstrap sweep generator and horizontal amplifier, which causes a trace to sweep horizontally across the cathode ray tube at a constant speed, as each pulse is emitted; and a cathode ray tube or oscilloscope.

In addition to the above essential elements the Immerscope has apparatus for delaying the synchronization to allow the operator to select what he views on the oscilloscope; an audio or visual flaw alarm, a sensitivity time control to amplify later returning weaker echoes; and a marking system that produces pips at regular time intervals on the oscilloscope screen adjacent to echo pips for a time measuring yardstick.

The Immerscope's crystal pulsing apparatus sends a pulse of electricity to the crystal and causes it to vibrate in the same manner as the wave train generator of patent No. 1. Although the component parts of the wave train generator and the pulsing apparatus have different names, their total effect is the same.

Both devices use a piezoelectric quartz crystal that is caused to vibrate when it receives a pulse of electricity. These crystals are substantially identical. The Immerscope uses one such crystal for both a sender and receiver while the device of patent No. 1 may use one or two.

Firestone uses a thin film of oil or wax between his crystal and workpiece to conduct sound waves from one to the other. The Immerscope uses a column of sound conducting liquid, usually water, between them, obtained by immersing both the crystal and workpiece in liquid or running a stream between them.

The Immerscope has an amplifier-rectifier combination which amplifies weak electrical currents received from the crystal and rectifies individual oscillations so that only their voltage envelope is shown on the oscilloscope screen. Firestone's patented device calls for an amplifier and a rectifier to be used for the same purposes, although his rectifier is optional.

Both devices have a linear sweep circuit synchronized with the emission of pulses or wave trains that cause a

trace to travel at a constant speed across the oscilloscope screen.

The Immerscope and the patented device utilize a cathode ray tube or an oscilloscope as an indicating device.

Defendants urge that the Immerscope can be distinguished from Firestone patent No. 1 by the type of testing done by each. It is claimed that the Firestone patent is limited to contact testing whereas the Immerscope is used in immersion testing and that difference is sufficient to avoid infringement. The District Judge discussed this distinction at length and found that at most the Immerscope was an improvement over the Firestone patent and that there was infringement. We are in accord with his findings and conclude that they are not clearly erroneous.

Upon a careful analysis of the elements and functioning of the Immerscope and Firestone patent No. 1, we conclude that the Immerscope operates in substantially the same way and uses substantially the same means as that which forms the substance of the Firestone invention.

Accordingly, we sustain the District Court's finding that claims numbered 2, 3, 4, 10 and 11 of patent No. 1 are infringed.

No. 2 patent is invalid for lack of invention over the disclosures of No. 1. Its alleged improvements over patent No. 1 were obvious to one skilled in the art. Therefore, No. 2 adds nothing to the disclosures of patent No. 1.

There seems to be little question that the Immerscope infringes all of the claims of patent No. 3. The defendants virtually admit this in their argument on the validity of the claims of patent No. 3 (Defendants' brief p. 40). We are in accord with the findings and conclusions of the trial judge on this question. The claims of patent No. 3 are infringed by the Immerscope.

The evidence supports the reasoning and conclusions of the trial judge on the question of infringement of claim 2 of patent No. 4. His findings are not clearly erroneous and for the reasons stated by him we conclude that the Immerscope infringes claim 2 of patent No. 4.

This case presents substantial questions on the validity of the patents in suit. There is very little question about the infringement of the accused device. Electro Circuits, Inc. sought a license from Sperry in order that it might manufacture its Wide Band Converter. This request for a license was refused but Sperry entered into a contract with Electro Circuits whereby it could use the Sperry patents in its Wide Band Converter under certain conditions or restrictions. These conditions or restrictions will be discussed later. Electro Circuits continued under the belief that it was necessary to have consent to use the disclosures of the Firestone patents until it was advised by counsel that they were invalid. Upon receiving this advice it began making the Immerscope, the accused device without restriction.

By some process of reasoning, the defendants now argue that the overall system of Sperry in the use of its foreign patents somehow relate to the use of its domestic patents, which results in such a misuse of those patents that they cannot be enforced. No pertinent authorities are cited in support of this alleged principle. Neither is there any reference to it in the Statement of Facts in the defendants' brief.

Counsel for the defendants approach this phase of the case in their brief as though this Court was hearing and determining the questions raised de novo. We address our attention only to alleged errors of the trial court.

Foreign patents grant no monopolies in the United States, nor do United States patents grant any monopolies in foreign countries. A patent is granted by a sovereign

power and its rights, privileges and obligations begin and end with the country that issues it.

The trial judge found that there was no misuse of the patents in suit as a result of Sperry's licensing and cross-licensing of foreign patents. There is ample evidence to support this finding and it is not clearly erroneous. We agree with the finding and the law as applied to it by the trial judge.

Another claim of the defendants is that Sperry imposed a "tying" agreement upon Electro Circuits, and that this agreement is illegal and constitutes a misuse of the Sperry patents and it is a violation of the anti-trust laws. In this connection, the trial court made findings, as follows: "Electro Circuits was organized in California in 1951. It commenced active operations in that state in July 1951. Its first development was a weld inspection apparatus which was followed by the development of a Wide Band Converter and the Immerscope. These devices operate on the principle of the pulse echo method of ultrasonic testing. At the time of its first development Electro Circuits attempted to secure a license under the Sperry patents in return for its agreement to purchase from Sperry unpatented subassemblies of the latter's patented devices. Sperry rejected this proposal. When Electro Circuits was ready to market its Wide Band Converter, Richards, the president of that company, had a conference with the officials of Sperry with a view of securing an agreement that would permit Electro Circuits to manufacture and sell its Wide Band Converter without being sued for infringement . . . It was agreed between the parties, however, that Sperry would forbear instituting suit for infringement provided Electro Circuits sold its Wide Band Converter for use only in conjunction with Sperry's Reflectoscopes. The Wide Band Converter was designed so that it could be 'plugged in' to a Reflectoscope. Under this arrangement of joint use,

only the display portion of the cathode ray oscilloscope of Sperry's instrument was used. All other functions of the dual apparatus were performed by the Wide Band Converter. The agreement remained in effect for about 9 months, during which time Electro Circuits sold 8 Wide Band Converters to owners of Reflectoscopes and one Wide Band Converter to a customer who agreed to its use with a Reflectoscope to be purchased from Sperry."

This agreement does not provide for the sale of any article covered by the patents in suit. Obviously then it does not provide that some other article either patented or unpatented must be purchased in order to get an article covered by the patents in suit. The agreement permits Electro Circuits to market its Wide Band Converter without being subjected to a suit for infringement. At this point, the parties to the agreement assumed that the Wide Band Converter infringed the Sperry patents. This being so, Sperry could have prevented the sale of the converters or could have sued the users for infringement. Sperry was legally entitled to be free of competition in the use of its patents. Under the agreement, no trade was unlawfully restrained. An article was thus introduced into commerce that might otherwise have been withheld from the markets.

There is no tying agreement here as that term has been defined by the courts.

"For our purposes a tying arrangement may be defined as an agreement by a party to sell one product, but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier. Where such conditions are successfully exacted competition on the merits with respect to the tied product is inevitably curbed." *Northern Pac. R. Co. v. United States,* 356 U. S. 1, 5.

The evil of tying agreements is the suppressing of competition. "Tying agreements by which the sale of one commodity is conditioned on the purchase of another have been repeatedly condemned under the antitrust laws, since they serve no purpose beyond the suppression of competition." *Black v. Magnolia Liquor Co.*, 355 U. S. 24, 25.

To be free of competition on the article patented is the very basis of the grant of a patent. In the agreement Sperry did no more than protect its fundamental and basic rights under its patents.

We conclude that the trial judge was not in error in finding that the agreement in question was neither a violation of the anti-trust laws nor a misuse of the patents in suit.

Another question presented by the defendants in their briefs concerns an alleged imposition by Sperry or restrictions on the use of its patented Reflectoscope after sale or lease. The argument addressed to this question relates to an Angle Beam Search Unit not covered by any of the patents in suit.

The evidence discloses that the Reflectoscope which is the subject of the patents in suit was sold outright without restriction. Approximately eleven hundred were so sold.

The Angle Beam Search Unit might be termed an accessory to the Reflectoscope, a device that might be used with it but not essential to the use of the Reflectoscope.

Until January 16, 1956 this device was leased and not sold. A condition of the lease was as follows: "1. Use. To be used for inspecting lessee's manufactured products, materials used therein, production equipment, and in the case of railroads, for the inspection of its rolling stock and components pertaining thereto." (dx RRRR, 140a.) As of the above date all units were sold outright without restrictions.

There is no reference to any evidence, nor do we find any that would indicate that the patents in suit were in any way used to enforce restrictions on the use of the Angle Beam Search Units.

The patents in suit, therefore, were not misused or used in violation of the anti-trust laws. It is unnecessary to pursue further the restrictive condition of the lease of the Angle Beam Units. We are in accord with the conclusion reached by the trial judge.

We find no merit in the claim of defendants that the patents in suit were misused by placing on the patent tag of Reflectoscopes other patent numbers in addition to those in suit, under the words "Manufactured under one or more of the following patents."

The evidence does not show that the defendants or anyone else was injured by this listing of patents. It does not disclose that Sperry acquired any monopoly beyond what it was entitled to have under its patents. The patents in suit were properly listed on the patent tag.

The findings and conclusions of the trial judge on this question were correct.

The trial judge found that the defendants failed to sustain their claims of misuse and violation of the anti-trust laws. We have sustained him in these findings. It follows therefore that he was correct in dismissing the counter claim of the deefndant Electro Circuits, Inc.

The judgment of the District Court will be affirmed, except as to its judgment finding claims numbered 16, 19, 20, 25, 26, 29 and 32 of patent No. 2 valid and infringed.

The judgment of the District Court as to claims numbered 16, 19, 20, 25, 26, 29 and 32 of patent No. 2 is reversed. The case is remanded to the District Court with instructions to enter a judgment on the above numbered claims of patent No. 2 in accordance with this opinion.

SUPREME COURT, U. S.

FILED

OCT 6 1961

JAMES R. BROWNING, CLERK

IN THE

Supreme Court of the United States

OCTOBER TERM, 1961.

No. 316

ALUMINUM COMPANY OF AMERICA, ELECTRO-CIRCUITS, INC., AND CURTISS-WRIGHT CORPORATION,

Petitioners,

vs.

SPERRY PRODUCTS, INC., FLOYD A. FIRESTONE AND UNITED AIRCRAFT CORPORATION,

Respondents.

PETITIONERS' BRIEF IN REPLY TO OPPOSITION BRIEFS OF RESPONDENTS SPERRY PRODUCTS, INC., AND FLOYD A. FIRESTONE.

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THE GUNTHORP-WARREN PRINTING COMPANY, CHICAGO

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PETITIONERS' BRIEF IN REPLY TO OPPOSITION BRIEFS OF RESPONDENTS SPERRY PRODUCTS, INC., AND FLOYD A. FIRESTONE.

The opposition briefs of respondents Floyd A. Firestone and Sperry Products, Inc., demonstrate the correctness of our petition, by evading each of the crucial issues raised therein.

PUBLIC SAFETY ISSUE.

With respect to the effect of this case on public safety, the opposition briefs are very evasive as to Patent No. 3, which will not expire until April 12, 1966, and which is involved in *both* questions. Its enforceability is involved in the first question. Its validity, and the alleged infringe-

ment thereof by the Immerscope, are involved in the second. The questions are clearly not "stale" nor "moot" as alleged by Sperry.

The briefs are also very evasive as to the unique suitability of the Immerscope for *production line testing* of aircraft parts to detect defects therein. Respondents are only able to repeat what we conceded in our petition, that the Sperry UW Reflectoscope, belatedly introduced in 1955, is an immersion instrument useful in many applications and particularly as a laboratory instrument. Respondents cite no evidence to rebut the testimony of Gauthier (499a-500a) and Prosek (513a) that the UW Reflectoscope is not suitable for production line use. Indeed, the brief of respondent Sperry artfully avoids any reference to production line testing.

Respondent Sperry apologetically goes outside the record in stating that licenses are available to petitioners. We are advised that a license has been refused pending disposal of this litigation. As yet, there is little assurance that Sperry's attitude has changed from that expressed by Sperry's former president, Farwell, that "they were not interested in considering a license because the field was not large enough for two companies" (Richards, 660a; Fink, 606a). We submit that the outcome of this case directly affects public safety.

FIRST QUESTION.

Respondent Firestone's entire argument is based upon the completely false premise that we have alleged a tie-in of an unpatented product.

Both Respondents quote the decisions below to infer that they conflict with our assertions. That is not true. The Courts below made factual findings which support and do not conflict in any way with our position. But the

Courts below made no reference to and apparently did not consider certain surrounding circumstances which are very important and are clearly established in the record, as pointed out in our petition at pages 15-18. Respondent Sperry completely avoids discussion of those circumstances. Respondent Firestone purports to discuss them, but in a very evasive manner. In doing so, both virtually concede the correctness of our position.

Specifically, Respondents do not deny and tacitly admit that immersion equipment was in demand by aircraft companies as early as 1951; that Sperry had a 100% monopoly in the field of pulse-echo inspection; that Sperry was unable to or unwilling to make immersion equipment suitable for production testing of aircraft parts; that ElectroCircuits being ready and able to market immersion equipment assumed without investigation that Sperry's charges were justified and went to Sperry to request a license; and that Sperry refused to license on a royalty basis and used the agreement to hold ElectroCircuits in a subservient position to forestall challenge of its patents and its monopoly.

Respondents seek to minimize the importance of the issue, by referring to the fact that only a few instruments were sold while the restrictive agreement was in effect. Respondents do not deny that the reason only a few instruments were sold was that the price of complete immersion equipment under the tying agreement imposed was almost doubled. Nor do Respondents deny that ElectroCircuits could have made more sales and/or greater profits per sale with a license on a royalty basis, if at all reasonable. Respondents practically admit that the restrictive agreement constituted an unreasonable restraint of trade and that it damaged ElectroCircuits.

SECOND QUESTION.

As to Patent No. 1, respondents tacitly admit that the asserted claims distinguish from the prior art only in a statement of purpose or result in the introductory clause thereof. They ignore the challenge of the last paragraph of page 24 of our petition, and again make no attempt to point out any novel structure recited in the claims. They do not deny that the only structure which might possibly be considered novel is the "effective contact" of claim 4, a feature not used in the Immerscope.

Similarly, as to Patent No. 3, respondents do not deny that the Court of Appeals held the patent valid on the basis of alleged results set forth in an application for reconsideration filed in the Patent Office, which did not consider our prior art, and on the basis of an "interposed member" in contact with the part and crystal. They do not deny that the Court of Appeals held the patent infringed without considering the prior art and without considering that the Immerscope does not use such an interposed member, but follows the prior art.

Under these facts, it is clear that the decision of the Court of Appeals is in direct conflict with the rules of law discussed on pages 19 to 23 of our petition, established by decisions of this Court and others, and not changed by 35 U. S. C. Sec. 112.

Although they will not directly admit it, both respondents show in their argument that the effect of the decision of the Court of Appeals would be to broaden the monopoly obtainable with "means" type claims. The Sperry brief appears to argue at the top of page 6 that

the 1952 Act changes substantive law, and then at the middle of page 6 appears to agree with our position that Section 112 does not broaden the obtainable monopoly. Then, however, at the bottom of page 6, Sperry appears to argue that claims are necessarily valid if they meet the formal requirements of the third paragraph of Section 112, completely ignoring the question of whether they are valid if they distinguish from the prior art solely in terms of function or result. The Firestone brief appears to argue at the bottom of page 13 that "means" claims are necessarily valid if supported in the specification and not anticipated, without regard to the question of whether they distinguish from the prior art only in terms of function or result.

Both briefs evade the question as to the effect of Section 112 and the effect of the decision of the Court of Appeals on the rule that a claim to a function or a desired result is invalid, established in the decisions of this Court cited at page 19 of our petition. Both briefs evade the question as to the effect of the portion of Section 112 retained from previous statutes, as to "particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

An analysis of respondents' briefs thus shows clear support of our position that the outcome of this case directly affects public safety, that the decision of the Court of Appeals is in conflict with previous decisions of this Court, and that the effect of the decision would be to greatly enlarge the scope of monopoly which might be obtained and extended through patents by defining the invention solely

in terms of the *result* sought and by completely emasculating the requirement of Section 112 as to "particularly pointing out and distinctly claiming" the invention sought to be protected.

Respectfully submitted,

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